

FACTORS INFLUENCING THE ATTITUDE OF WOMEN TOWARDS PURCHASING GREEN PRODUCTS: AN EXPLORATIVE CASE STUDY OF ORGANIC COSMETICS IN SWEDEN

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ABSTRACT

This paper investigates green consumer behavior by analyzing women's attitudes towards purchasing organic cosmetics in Sweden in order to determine the factors that influence their purchasing behavior. The study is based on the modified Theory of Planned Behavior (TPB) explained with primary data collected through an online survey of 220 women who live in Sweden. The findings are in line with the previous studies, which confirm that consumers' attitudes towards green products have a positive influence on purchase intention. Moreover, this study has found that the individual's education and income level have a positive relationship with attitude and future purchase intention.

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INTRODUCTION

The earth's environment has undergone major destructive changes due to the overconsumption of natural resources, damage to the ozone layer and the diminution of cultivatable land (O'Sullivan & Ramsay 2018). Previously, the movement addressing environmental issues focused only on pollution and energy conservation. However, an ecological method of producing could give firms a strong competitive advantage. This is the ultimate solution to the stalemate between the economy and the environment (Straughan & Roberts 1999). Firms have therefore increased their green product research and development in recent decades (Weng, Chen, & Chen 2015). Environmentally friendly products are defined as products that have fewer negative effects on the environment throughout their whole lifecycle including production, use, and disposal compared to other products (Barber *et al.* 2014). Kumar and Ghodeswar (2014) added that the green product lifecycle starts from the design and collection of the raw material, which is the manufacturing part, through to when it arrives at the storehouse, the goods are transported, usage, and after the use of the product as well.

All of the harms that humans cause to the earth have led to an awareness of environmental protection. Unquestionably, consumer purchase behavior has a direct impact on many environmental problems (Laroche, Bergeron & Barbaro-Forleo 2001). When a company promotes a green product, it is something that

will help to minimize the environmental effect of consumer consumption (Liobikien, Grincevi & Bernatoniene 2017). To this end, consumer environmental awareness has led to an increase in the demand for green products in the global market (Joshi & Rahman 2015).

Therefore, a growing number of consumers now show a measure of concern for the environment. This is the reason why business firms have moved into green marketing and investigated consumer attitudes to the purchase of green products (Cheah & Phau 2011). Environment-friendly products are gaining popularity over ordinary products since consumers are becoming more aware of their health and the importance of the protection of the environment. Additionally, consumers are willing to pay a premium price for green products (Paul & Rana 2012). This has led to current business firms viewing green developments as market opportunities instead of restrictions (D'Souza, Taghian & Lamb 2008). As for environmentally-friendly, purchase intention plays an important role in marketing (Magnussona *et al.* 2003). Purchase intention in an attitude-behavior relationship is influenced by the different levels of efforts being undertaken to exercise the behavior. These efforts may include convenience, cost, time and space (Ramayah, Lee & Mohamad 2010). According to Tan and Lau (2011), it is established that the attitude-behavior correlation is significant when attitude is operationalized as a specific environmental behavior rather than as a general attitude toward the environment. Kim and Chung (2011) added that past experience also affects an individual's purchase intention because it formalizes the product perception that leads to future purchase intention. To predict purchase intention, companies can ask the consumers about their past purchase behavior so as to predict their future behavior, even though it's not necessarily accurate because what customers have bought in the past may not be bought in the future. Because, behaviors change over time (Blackwell, Miniard & Engel 2006).

Recent research shows that women have relatively stronger environmental concerns than

men (Molina, Sainz & Olaizola 2018). Women report more pro-environmental actions in their everyday behavior such as energy conservation, recycling, water conservation and the selective use of transport (Molina *et al.* 2018). According to Dietz *et al.* (2002), women are more active only in one particular domain of pro-environmental action related to consumer behavior like buying organic products, cutting back on vehicle use, sorting recyclables in the private sphere. By nature, women have a nurturing role which encourages them to be more compassionate, empathetic, and cooperative than men and to be more protective of the environment (Molina *et al.* 2018).

Environmentally-friendly consumers look for chemical-free personal care organic products to maintain their youthful look and improve their appearance (Kim & Chung 2011). This is because organic cosmetics are made with a minimum of chemical substances or they may use completely natural products. In addition, in order to increase the consumers' environmental consciousness and to promote environmentally innovative and sustainable businesses, companies use eco-labeling on their products. Eco-labels are tools used to help consumers in their decision when making an environmentally-friendly purchase (Thøgersen 2000). For this reason, the efforts being undertaken by many environmental regulatory agencies to increase the awareness of society regarding its impact on the environment and environmentalism have become an important global concern (Brown 2008).

According to Borgna (2018), environmental concerns have been the trigger for the high demand for organic cosmetics among Nordic consumers. Euromonitor has observed some of the reasons behind it. For instance, the harmful ingredients in cosmetic products, health and environmental issues, and the potential health risks of beauty. The Swedish natural cosmetics market is dominated by imported brands even though local consumers show a big interest in local brands. However, the younger population is influenced by other international brands. Three types of the consumer have been

identified in the organic cosmetic industry. First, there are those who buy natural or organic cosmetics to avoid skin problems. The second type of consumer buys natural products because they want to protect nature and the planet. They are particularly concerned with the production processes and sustainability. Finally, the third type of consumer buys natural cosmetics because it is part of their lifestyle. According to the survey among 60 cosmetic brands in Sweden conducted by the NOC Sweden (Natural Organic Cosmetics) and export group Business Sweden, the natural and organic cosmetics segment in Sweden grew by 22.2% in 2017. (Manson 2018). Around 40 natural and organic cosmetics brands are distributed across 8 retailers in Sweden, such as the Body Shop, Medstop Apotek, Åhlens, Kronans Droghandel, Apoteket and Nature – Livetsapotek, Life – Naturligt Hälsa and Kicks (Kosmeticaworld 2018).

Sweden is one of the leading countries in climate change mitigation and has been hailed globally for its environmental policies. Sweden's capital city Stockholm won the Green Capital of the Year award in 2010 (European Green Capital 2010). The country has established an identity and traditions that have a deep 'sense of nature' and its protection. This 'sense' has been leading to it playing a huge role in developing the overall agreement of the country to protect the environment (Breiting & Wickenberg 2010). This has helped it to become much easier to entrench environmental policies (Merchant 1996). Sweden has a well-knit, innovation-oriented economy and a well-developed welfare state system. These have helped it to build a sound environmental governance structure. According to Naturvårdsverket (2017), the government of Sweden maintains a clear environmental profile as is evident in its annual national budgets. Protecting the environment is one of their highest national priorities, which includes establishing a new form of support for green areas in cities, adopting strategies for climate change adaptation, creating new green jobs in line with a green transition, increasing the level of sustainable consumption and production, and strengthening the protection of

marine areas. In Sweden, the consumers' needs are incentivized (e.g. through a differentiation in VAT rates) to encourage them to consume food products with little climate or environmental impact rather than food products with a high impact.

Sustainable behavior is described as a set of effective, deliberate, and preemptive actions that lead to the preservation of natural resources, including the integrity of animal and plant life as well as the individual and social welfare of current and future human generations. This replaces the terms 'pro-environmental', 'pro-ecological' and 'environmental behavior' (Carrete *et al.* 2012). The consumers' insufficient knowledge or awareness of green products often results in an attitude-behavior gap between environmental concern as it relates to buying behavior and their actual buying behavior (Biswas & Roy 2014). According to Barber *et al.* (2014), there are three important contributions that marketing can make to improve this environmental movement. First, there is a need to developing new strategies for sustainable marketing. Second is re-positioning the pitfalls of "greenwashing", which refers to misleading marketing regarding the environmental benefits of a product. Finally, businesses need to launch aggressive strategies to profile the environmentally conscious population.

Given the problem background as discussed above, the purpose of this paper is to study green consumer behavior by analyzing women's attitude towards purchasing organic cosmetics in Sweden as well as to determine the factors that influence their purchasing behavior. The research question is '*What are the main factors that influence the women in Sweden in their choice of purchasing green products over ordinary products?*' In order to operationalize this research question, the following research objectives are addressed:

To construct a suitable conceptual framework that can explain the relation between the attitudes towards green products and the purchase intention of women in Sweden.

To identify the factors that influence the purchase of environmentally-friendly products.

LITERATURE REVIEW: TOWARDS A CONCEPTUAL FRAMEWORK

In the following section, the theoretical framework is presented which is the foundation and framing for the entire study. The section starts with the green consumer, green marketing, green marketing strategies, and the green consumer purchasing model. Following this, the section moves on to the Theory of Planned Behavior (TPB) framework where perceived behavioral control, eco-awareness, social influence, and past experience are discussed. The section ends with the hypotheses.

Green consumers

Green consumers are described as those who take into consideration the environmental consequences of their consumption patterns. They intend to modify their purchase and consumption behavior to reduce their environmental impact (Kumar & Ghodeswar, 2014). Ottman (1993:27) defined a green consumer as those who 'actively seek and support those products which satisfy their needs that are having less impact on the environment.' All consumers are potentially green consumers. In the recognition of different characteristics of green consumer, Shabani *et al.* (2013) stated that green consumers can be divided into five categories based on their environmentally-friendly behavior including true blue greens (i.e. active environmentalists and committed to consuming environmental products), greenback greens (i.e. they switch to other products if the green environmental products are not available), sprouts (i.e. don't usually purchase green products but they will buy it if they are marketed to them in an appropriate way), grouzers (i.e. not committed to buying environmental products) and basic browns (i.e. consumers who do not think about environmental issues and highlight profit only).

Demographics

Age, gender, education level, occupation, income level and family size are considered to be the most important demographic factors that have a significant relationship with environmental behavior (Chekima *et al.* 2015). Researchers have identified that women and young people (Lee 2017) as well as people with relatively high education and income levels (Straughan & Roberts 1999) are highly involved in green consumption behavior. Younger households and women consider organic products to be important during their purchase decision and they are more likely to be environmentally friendly (Van Doorn & Verhoef 2011). Education and pro-environment attitudes have a strong positive relationship (Vining & Ebreo 1990). Likewise, income predicts environmental concern and activity (Mainieri *et al.* 1997).

Perceived behavioral control

Personal norms reflect moral standards of an individual. Moral considerations have a significant role in consumer decision-making. Some consumers tend to reject companies because of their unethical practices that harm the environment directly (Moser 2016). A study by Kim and Chung (2011) indicate that consumer personalities and values affect their green purchase intention. Jansson *et al.* (2010) defined personal norms as feelings of moral obligation to act and postulated to create willingness to act pro-environmentally, which is assumed to be formed by incorporating social norms into a consistent personal value system. To this end, Kim and Choi (2005:593) argued that 'individuals with a strong belief that their environmentally-conscious behavior will result in a positive outcome, are more likely to engage in such behaviors in support of their concerns for the environment. Accordingly, self-efficacy beliefs may influence the likelihood of performing green purchase behavior' *Eco-awareness*

Eco-awareness, which is synonymously termed 'eco-literacy', was first labelled as such in 1995

by Capra (McBride *et al.* 2013). Capra (1995) created the term eco-literacy and defined it as an understanding of the principles of ecosystems and applying those principles to create sustainable human communities. The major element of eco-awareness is using resources in a way to ensure that they are available in the future (McBride *et al.* 2013). The most widely accepted meaning of eco-awareness is that it includes awareness about the environment and its related problems, as well as the knowledge, skills, and motivations to work to find solutions to the current problems while avoiding of new ones (McBride *et al.* 2013). In order to purchase environmentally-friendly products wisely, most consumers tend to require a lot of information so then they can see the big picture. Their knowledge about environmental problems and the issues involved are used to develop their opinion or attitude in order to let them choose according to their intentions (Cheah & Phau 2011). Consumer knowledge plays an important role because it helps to increase the feeling of trustworthiness of the product in that it is environmentally-friendly. This knowledge will lead to eco-literacy (Cheah & Phau 2011).

Social Influences/subjective norms

Put simply, social influences or subjective norms refer to a person's actions, reactions, and thoughts that are influenced by other people or groups. Previous studies have indicated that social influences, such as subjective norms, have a positive effect on the purchase decision related to sustainable and environmentally-friendly products (Wang 2014). Wong and Boh (2010) indicated that social influence factor affects a person in various ways. For example, people observe the behavior of others or they perceive there is social pressure from influencers to perform a particular behavior. Social influence theory has suggested that people get various types of social indication/knowledge from other people and that they use this insight when an uncertain situation arises. The social influence of peers, family groups and influential bodies can convey information and activate emotional reactions through factors

such as modeling, instruction and social persuasion. Social influence has a significant effect on behavioral intention in the context of skin care products (Hillhouse, Turrisi & Kastner 2000).

Past experiences

It is argued that past behaviors of consumers can provide reliable forecasts of behavioral intention (Bagozzi *et al.* 2000). In this case, we can refer to past experience as the knowledge that the consumer has about the product. This knowledge may come, for example, from their family or friends (Ateke *et al.* 2018) or from direct prior experience, websites, or magazines etc. According to a research on green purchase behavior, the past experiences that the consumers have with green products may be crucial in building their product knowledge which may lead the customers to buy and use it in the future (D'Souza *et al.* 2006). An earlier positive experience in the purchase of green products of consumers may increase their possibility of purchasing other green products (Kim 2009).

Purchase intention

Purchase intention is defined as an individual being sympathetic and prompted to buy a certain product in a certain situation (Parengkuan 2017). The customer's purchase decision is a complex process where an individual's behavior, perceptions and attitudes are included. As stated by Jaafar, Lalp and Naba (2012:75), 'purchase intention is an effective tool to predict the buying process. Purchase intention may be changed under the influence of price or perceived quality and value'. In addition, people may also be affected by internal or external factors during the purchasing process. Young *et al.* (2010) developed a green consumer purchasing model and success criteria for closing the gap between green consumers' values and their behaviour. Their study was based on the data collected from 81 self-declared green consumers in the UK. The model reviews the green consumer's purchase process of green products, which involves five elements, specifically general

green values and knowledge, green criteria for purchase, barriers and facilitators, product purchase and feedback. These altogether comprise the individuals' purchase intention (Young *et al.* 2010).

Hypotheses

There is a positive relationship between consumer attitude and the behavioral intention to buy environmentally-friendly products in different cultures and across a variety of products (Kim & Chung 2011). Ajzen and Fishbein (1980:62) demonstrated that 'an individual's behavior is defined by his intention to perform the behavior, and this intention is a function of his attitude toward the behavior and his subjective norm'. The purchase decision for green products is one of the positive indicators of the environmentally-friendly behavior scale (Liobiki, Grincevi & Bernatoniene 2017). An individual who is eco-aware and has a positive experience with ecological products has a high tendency to exhibit strong intentions to purchase a green product on account of its green attributes (Norazah 2016). For example, if an individual believes in conscientiously recycling or garbage sorting in daily life, then the person will buy more environmentally-friendly products as well. The first hypothesis, therefore, is:

H1: Individuals' attitude toward purchasing green products has a positive influence on their intention to buy similar products.

Environmental knowledge has a primary role in an individual's attitude towards purchasing green products. It influences the individuals' daily decisions related to the environment. The individual's knowledge regarding the environment plays a multifaceted role in influencing their behavior as it provides the subject with knowledge about action strategies and issues while helping to shape their attitudes and intentions through their particular belief system (Cheah & Phau 2011). As Laroche *et al.* (2001:513) pointed out, 'the education of the consumer is seen as an appropriate method for increasing perceived convenience and establishing credibility'. Eco-awareness measures the respondent's ability to identify the

environment-related symbols, concepts and behaviors that are correlated with a positive attitude towards the environment (Cheah & Phau 2011). This leads to hypothesis 2:

H2: Eco-awareness has a positive influence on the attitude of buying an environmentally-friendly product.

Social influences have a great impact on people's decision-making and consumption behaviors (Laroche *et al.* 2001) because group interest priorities are greater than personal beliefs (Wang 2014). Previous studies have suggested that people who believe in a group interest are more likely to engage in environmentally-friendly behavior and emphasize the group goals (Wang 2014). Collectivism is regarded as an influential predictor to ecological commitment, a positive attitude towards the environment (Leonidou *et al.* 2010) and the buying intention of green products (Wang 2014). Consequently, individuals with high social influence are more concerned with the public benefits and they consider environmentally-friendly aspects when making purchase decisions (Wang 2014). Therefore, the hypothesis 3 is:

H3: Individuals with strong social influences are more likely to exhibit green purchasing attitudes compared to people with low social influences.

Social influences strongly affect the buying intention of environmentally-friendly products because when people have less information about new or innovative product, they try to use the knowledge of their friends, family and peer groups. A previous study found that a collectivist is more motivated to act towards the benefit of the group. Collectivist people tend to be more environmentally-friendly while individualistic people tend to be less environmentally-friendly (Cheah & Phau 2011). In his theory of planned behavior, Ajzen (2005) describes that the subjective norms in human behavior are created by social pressure. Pressure groups (parents, relatives, friends, colleagues and teachers) are those close to a person can create the necessary social pressure to perform a certain behavior (Ajzen 2005). Social surroundings, for

instance, those of their family, friends and peer networks, strongly influence an individual's buying behavior. Interpersonal processes and the relationships between influential leaders and professionals have a substantial impact on the attitudes towards buying environmentally-friendly products (Cheah & Phau, 2011). This leads to hypothesis 4.

H4: Individuals with strong social influences are more likely to exhibit green purchasing intentions compared with people with low social influences.

Previous research has argued that an individuals' past experiences can provide better predictions of behavioral attitude (Kim & Chung 2011). Regarding green purchasing behavior, people's past experience with green products may be "crucial in forming the product-specific perception that would lead to future purchase decision." This results in an individuals' past experiences guiding their purchases or the use of green products (Kim & Chung, 2011). This leads to hypothesis 5.

H5: An individuals' past positive experiences with organic products will have a positive influence on their attitude towards similar organic products.

Past experiences are a very important source of information in future decision-making. The quality of the customers' experience has become a critical concept in consumer buying behavior (Chen & Chen 2010). Delgado-Ballester and Munuera-Aleman (2005) established that the trust formed through past experience influences the upcoming purchase decision. Therefore, the following hypothesis 6 is proposed:

H6: An individuals' past positive experiences with organic products will have a positive influence on their purchase intention towards similar organic products.

Previous studies have revealed that the internal locus of control has a positive relationship with purchasing environmentally-friendly products and prompting pro-environmental and green product purchase behaviors (Wang 2014). According to Ajzen (2005), individuals who

perceive a higher degree of personal control tend to have a stronger behavioral intention to engage in a certain behavior. When people have more resources such as time, money, and skills, their perception of control is high which increases their behavioral intention (Kim & Chung 2011). Therefore, the associated hypothesis 7 is:

H7: An individual's perceived behavioral control over buying green products has a positive influence on their intention to buying more green products.

Perceived behavior control is recognized as the final factor involved in predicting human behavior (Ajzen, 2005). It is expected that people who perceive themselves as having more behavior control have more intention to perform that behavior. For instance, when a consumer perceives themselves convenient to identify green products, then their intention to purchase those products is high (Kim & Chung 2011). The consumers' personality and their own values directly affect their green product purchase intention (Kim 2011; Wang 2014). Therefore, it is hypothesized that:

H8: An individual's perceived behavioral control when buying green products mediates their buying intention.

Theoretical framework

Ajzen's Theory of Planned Behavior (TPB) is the inspiration behind the modified model used in this paper (Figure 1). TPB was published in his 1985 article, 'From intentions to actions: A theory of planned behavior'. This theory was developed from the theory of reasoned behaviour (Ajzen & Fishbein 1980). To explore environmentally-friendly attitudes and the purchase intention of green consumers, another two models have been used. First there is Cheah and Phau's (2011) 'The Model of Consumer Environmental Attitudes' (CEA) and secondly, there is Kim and Chung's (2011) reconstruction of the 'Theory of Planned Behavior.' TPB was the foundation in all cases. Cheah and Phau (2011) presented the model of Consumer Environmental Attitudes (CEA) as the focal construct and they related it to the other

social-psychological constructs of eco-literacy, interpersonal influence and value orientation. Social and psychographic information has a very important role in understanding consumers within the context of environmental marketing (Laroche *et al.* 2001). This is because it includes their values, their level of education in a specific area, any interpersonal influences and their opinions and attitudes (Cheah & Phau 2011). A consumer's environmental attitudes and behavior have been documented to be complex, whereas ecological consciousness has its own significant role to play when profiling green consumers (Cheah & Phau 2011).

The TPB has been applied to predict green consumer behavior. The validity of the theory has been confirmed previously (Kim & Chung 2011). Specifically, Kim and Chung (2011) used TPB to explain the purchase intention to buy organic products. The authors considered the consumer's values to be an antecedent of attitude, the consumers' past experiences as a predictor of purchase intention and perceived behavioral control as a moderator of the attitude - purchase intention relationship.

However, for this study, both models have been used due to their stronger connection to the attitude towards green products and the purchase intention of green consumers. The modified framework excludes the factors that are not directly related to this study. The final

theoretical framework consists of the theories that cover all of the important aspects of green consumer behavior attitude and the purchase intention tied into buying environmentally-friendly products. In the framework, purchase intention is the only dependent variable. Social influences, perceived behavior control, eco-awareness and past experiences are the independent variables. The attitude towards green products is the mediating variable that influences purchase intention directly. Furthermore, social influences, perceived behavior control and past experience have a two-way influence on both the mediating variable and dependent variable.

MATERIALS AND METHODS

In relation to the hypotheses developed from the literature review section as above, it was necessary to design an empirical test of the interaction between their constituent elements. For this purpose, quantitative data collection was used because it is suitable when a single study needs to cover several areas (Eliasson 2006).

Data collection

Given the time constraint of the main author and convenience to access data, the survey was aimed at collecting data from at least 200

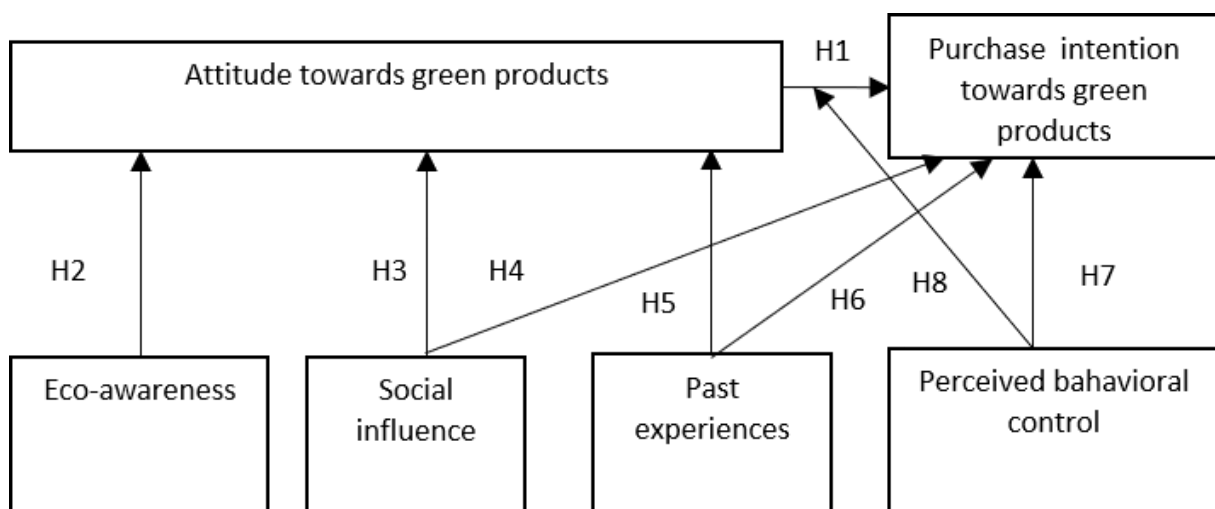


FIGURE 1: MODIFIED THEORY OF PLANNED BEHAVIOR (TPB)

potential respondents over a two-week period. A survey link (<http://bit.ly/mdh-green>) was created via Google Forms and it was sent to the respondents. Popular social media platforms such as relevant groups on Facebook, Viber, Messenger and WhatsApp were used to disseminate the questionnaires. An interceptive survey method, which is to gather on-site feedback from the targeted audience, was also followed during the process. This was conducted in-person generally in a big shopping mall. For instance, the interviewers might approach potential respondents leaving a shop and ask them to fill in the survey questions. In those cases, a printed survey questionnaire was used, which were the same as the online version of the survey. For ease in the data collection and as part of convenience sampling, Örebro, Västarås, Eskilstuna, Linköping and other cities in Sweden were selected where the authors had personal connections. This is where the people who participated in the survey had the opportunity to share the survey link on their own social media platforms in order to reach more participants.

Sample

In order to gain an understanding of certain trends and to develop the hypotheses within the time and financial constraints, this study used 'convenience sampling' (Lisa 2008). In this procedure, the researchers do not typically need to travel a great distance to collect the data. Instead, they simply pull from whatever environment is nearby (Palinkas *et al.* 2013). The survey was comprised of 220 women and 200 of them participated via online while the rest were reached onsite. The survey began with the first question which asked about the respondent's age group with five options starting from 18 and going through to 55+. The target group was university students, working women and housewives so long as they were living in Sweden. For the ease of the collecting data, both English and Swedish were used in the same survey so then both the English and non-English-speaking respondents could participate.

Survey design

The survey consisted of 16 questions using a structured questionnaire with closed-ended questions and a 5-point Likert scale. The first 6 questions were of a demographic nature and the other 10 were related to the theoretical framework (Figure 1). This included questions regarding eco-awareness, social influences, past positive experiences, perceived behavioral control, attitudes towards green products and purchase intention. The responses to these questions helped to examine the hypotheses and answered the research question of this study. The survey was focused on the particular characteristics of a specific population, which is often used to understand consumer opinions about certain products through the process of testing hypotheses.

Analytical method

The analysis was carried out using IBM SPSS Statistics which is a comprehensive set of statistical tools with an easy-to-use interface commonly used within quantitative studies (Bryman & Bell 2011). This program was used in every part of the analysis from the mean values through to the correlations and regression analysis.

Correlation analysis was conducted in order to establish whether there are any correlations between the variables and which the variables should be subsequently included in the regression analysis. Correlation analysis informs us of the strength and direction of the relationship between the variables (Pallant 2013). On the other hand, regression analysis helps to investigate if certain variables can predict other variables and how strong the prediction will be (Einspruch 2005). A multiple regression model is used when several independent variables exist and it tests how one of the independent variables affects the dependent variable. It also tests the influence that each of the independent variables has on the dependent variable (Hair *et al.* 2011). The demographic profiles of the respondents were analyzed in a simple descriptive manner to

provide some insights into the specific variables related to their behavior.

RESULTS

The results of the study presented in this paper are based on the survey conducted among 220 women who lived in Sweden during the mid 2019. The purpose of the survey was to find out the factors that influence the consumer's purchase intention and attitude towards green cosmetics. Table 1 below summarizes the demographic profiles of the respondents.

Measures of central tendency

Table 2 represents the mean and median of the respondent's reply regarding their attitude towards green products. Here, eco-awareness, social influence, past positive experience and perceived behavior control are examined in relation to attitude towards green products. The values are based on the 220 participants' responses. The results are presented on a scale of 1= strongly disagree to 5 = strongly agree.

There are two questions on eco-awareness that are related to environmental friendly attitude. It was observed that most of the respondents had eco-awareness. Thus, the means of the eco-awareness answers are 4.19 and 3.44

TABLE 1: DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Demographic Details	Number	Percentage
Age		
18 - 24 years old	56	25.5
25 - 34 years old	76	34.5
35 - 44 years old	67	30.5
45 - 54 years old	19	8.6
55 and above	2	0.9
Swedish Citizenship		
Yes	124	56.4
No (Resident, but not a citizen)	97	44.1
Education		
Primary school	4	1.8
High school	51	23.2
Bachelor's degree	30	13.6
Postgraduate degree	8	3.6
Employment Status		
Employed full time	73	33.2
Student	89	40.5
Homemaker	42	19.1
Self-employed	17	7.7
Part-time job	8	3.8
Seeking for job	1	0.5
Monthly Income*		
>15000 SEK	103	46.8
15001 – 30000 SEK	63	28.6
30001 – 45000 SEK	49	22.3
45001 – 60000 SEK	5	2.3
< 60001 SEK	0	0
Purchase of any environmentally-friendly products during the last two months		
Yes	140	63.6
No	25	11.4
Can't Remember	56	25.5

Note: Exchange rate on November 16, 2020, 1 SEK = 1.78 ZAR

TABLE 2: MEAN AND MEDIAN OF THE RESPONDENTS: ATTITUDE

		EATT	EATT2	SATT	PATT	PEATT
N	Valid	220	220	220	220	220
	Missing	0	0	0	0	0
Mean		4.19	3.44	3.65	3.61	3.53
Median		4.00	3.00	4.00	4.00	4.00

Eco-awareness / attitude = EATT1, EATT2. Social influence / attitude = SATT,
Past positive experience towards attitudes=PATT. Perceived behavioral control towards attitude=PEATT)

TABLE 3: MEAN AND MEDIAN OF THE RESPONDENTS: PURCHASE INTENTION

		SIN	PIN	PEIN
N	Valid	220	220	220
	Missing	0	0	0
Mean		3.24	4.09	2.79
Median		3.00	4.00	3.00

(SIN = Social influences towards purchase intention.
PIN = Past positive experience towards purchase intention.
PEIN = Perceived behavioral control towards purchase intention)

respectively. This represents that most of the respondents agree or are more than neutral in their answers. Questions regarding social influence, past positive experience and perceived behavior control towards environment friendly attitude also show either a positive attitude or a more than neutral attitude. Means are 3.65, 3.61 and 3.53 respectively. The median score was 4 for the social influence, past experience and perceived behavioral control answers.

Table 3 as shown above represents the mean and median of the respondents' answers regarding purchase intention. Social influence, past positive experience and perceived behavior control variables are evaluated here.

The participants' responses for social influence towards the purchase intention of green products are, on average, neutral where the mean is 3.24 and the median is 3. However, regarding the past positive experience question, the respondents answered agrees or strongly agree for the purchase intention of green products. The mean and median are 4.09 and 4 respectively. The perceived behavioral control question answers show very little influence on purchase intention where the mean is 2.79 and

the median is 3.

Correlation

To measure the strength and the direction of the relationships between two variables, Pearson's correlation was used in SPSS. A positive correlation indicates that as one variable increase or decreases, the other tends to increase or decrease with it. A negative correlation means that as one of the variables increases, the other tends to decrease or vice versa.

Table 4 shows the relationship between all of the variables including the dependent variable and independent variables. Purchase intention is the dependent variable and the attitude towards green products, eco-awareness, social influences, past positive experiences and perceived behavior control are the independent variables in this case. As Table 4 shows, purchase intention has a significant positive correlation with attitudes towards green products. It indicates that if the attitude towards green products increase, then the purchase intention of green products also increases where the Pearson correlation is .653**. Moreover, the significance level of .000 indicates the value that

TABLE 4: CORRELATION BETWEEN THE DEPENDENT AND INDEPENDENT VARIABLES

N= 220		EATT	EATT2	SATT	SIN	PATT	PIN	PEATT	PEIN	ATT	INTEN
EATT	Pearson Correlation	1	,058	,186**	,139*	,228**	,285**	,212**	-,129	,184**	,114
	Sig. (2-tailed)		,389	,006	,040	,001	,000	,002	,056	,006	,092
EATT2	Pearson Correlation	,058	1	,105	-,087	-,060	-,076	,171*	,057	,178**	,144*
	Sig. (2-tailed)	,389		,121	,201	,376	,260	,011	,399	,008	,033
SATT	Pearson Correlation	,186**	,105	1	,311**	,081	,273**	-,224**	,206**	-,106	-,163*
	Sig. (2-tailed)	,006	,121		,000	,232	,000	,001	,002	,116	,015
SIN	Pearson Correlation	,139*	-,087	,311**	1	,117	,314**	-,188**	,075	-,173**	-,216**
	Sig. (2-tailed)	,040	,201	,000		,083	,000	,005	,269	,010	,001
PATT	Pearson Correlation	,228**	-,060	,081	,117	1	,376**	,064	-,001	,013	-,055
	Sig. (2-tailed)	,001	,376	,232	,083		,000	,347	,990	,845	,416
PIN	Pearson Correlation	,285**	-,076	,273**	,314**	,376**	1	-,050	,148*	-,094	-,098
	Sig. (2-tailed)	,000	,260	,000	,000	,000		,463	,028	,165	,146
PEATT	Pearson Correlation	,212**	,171*	-,224**	-,188**	,064	-,050	1	-,293**	,566**	,529**
	Sig. (2-tailed)	,002	,011	,001	,005	,347	,463		,000	,000	,000
PEIN	Pearson Correlation	-,129	,057	,206**	,075	-,001	,148*	-,293**	1	-,193**	-,331**
	Sig. (2-tailed)	,056	,399	,002	,269	,990	,028	,000		,004	,000
ATT	Pearson Correlation	,184**	,178**	-,106	-,173**	,013	-,094	,566**	-,193**	1	,653**
	Sig. (2-tailed)	,006	,008	,116	,010	,845	,165	,000	,004		,000
INTEN	Pearson Correlation	,114	,144*	-,163*	-,216**	-,055	-,098	,529**	-,331**	,653**	1
	Sig. (2-tailed)	,092	,033	,015	,001	,416	,146	,000	,000	,000	

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

* . Correlation is significant at the 0.05 level (2-tailed).

TABLE 5: REGRESSION ANALYSIS FOR PREDICTING THE ATTITUDE AND PURCHASING INTENTION OF ORGANIC COSMETIC PRODUCTS

Model	Standardized Coefficients		t	Sig.
	Beta			
1	(Constant)		4.516	.000
	ATT	.653	12.739	.000

a. Dependent Variable: INTEN

TABLE 6: HYPOTHESIS REGARDING PURCHASE INTENTION AND ATTITUDE

Hypothesis	Result
H1: The individuals' attitude towards purchasing green products has a positive influence on their intention to buy similar products	Confirmed

TABLE 7: MULTIPLE REGRESSION ANALYSIS PREDICTING THE ATTITUDES TOWARD ORGANIC COSMETIC PRODUCTS

Model	Standardized Coefficients		t	Sig.
	Beta			
1	(Constant)		5.414	.000
	EATT	.205	3.020	.003
	EATT2	.183	2.778	.006
	SATT	-.163	-2.444	.015
	PATT	-.010	-.141	.888

a. Dependent Variable: ATT

represents the population. Social influence, past positive experience and perceived behavior control are negatively correlated with purchase intention. This indicates that even if people have a negative or low social influence, past experience and perceive behavior control could increase their green purchase decision.

When attitude towards green products was examined in relation to eco-awareness, social influence, past experience and perceived behavior control, the analyses suggested a significant positive relation between eco-awareness and attitudes towards green products. In other words, the individual's eco-awareness inspires their attitude towards green products. The increase in eco-awareness knowledge shows a positive attitude direction towards environment friendly behavior. Table 4 shows that the attitude towards green products and social influences have a negative correlation This indicates that less social influence may also result in more of a positive attitude towards green products. Past positive experience also shows as having a positive relation to green behavior, which indicates that previous favorable experience increases the attitude towards green behavior. Perceived behavior control has a significant positive correlation with a result of .529** towards green behavior and a significant level of .000. The results show that people who have more perceived behavior control also have more of a positive attitude towards green products.

Regression analysis

Table 5 shows that when the attitude towards green products increases by 1, purchase

intention increases by .653. Therefore, hypothesis 1 (H1) is strongly confirmed given the significance level .000.

The four causal relationships found in Table 7 are statistically significant and some are less significant. When the independent variable of eco-awareness increases by 1, the attitude towards green products increases by .205 and .183. The significance levels for eco-awareness level are .003 and .006 respectively, which are acceptable according to the statistical significance level. Knowledge is one of the most influential factors that affects green purchase intention and behavior. It therefore confirms hypothesis 2 (H2, Table 8). This is also in line with the findings of some studies that report that the consumers' eco-awareness positively affects their attitude and the purchasing of green products (Smith *et al.* 2010; Joshi & Rahman 2015).

The attitude towards green products decreases by 0.163 when social influence increases by 1 concerning the purchasing of organic cosmetic products, even though the significance level is .015, which is significant. However, two studies have confirmed there to be a negative relationship between subjective norms and individual green purchasing behavior (Connell 2010; Le, 2011; Joshi & Rahman 2015). Given such statistical as well as the theoretical arguments, we reject hypothesis 3 (H3, Table 8). When past positive experience increases by 1, attitude decreases by .010. The significance of past positive experience is .888. This implies that Hypothesis 5 (H5, Table 8) is not supported.

Hierarchical multiple regression analysis was

TABLE 8: SUMMARY OF THE HYPOTHESES REGARDING THE ATTITUDE TOWARDS GREEN PRODUCTS

Hypothesis	Result
H2: Eco-awareness has a positive influence on the attitude of buying an environmentally-friendly product	Confirmed
H3: Individuals with strong social influences are more likely to exhibit a green purchasing attitude compared with people with low social influences	Not confirmed
H5: An individuals' past experience with organic products will have a positive influence on their attitude towards similar products	Not confirmed

TABLE 9: HIERARCHICAL REGRESSION ANALYSIS PREDICTING THE PURCHASE INTENTION OF ORGANIC COSMETIC PRODUCTS

Predictors	Step 1			Step 2			Step 3		
	β	t	Sig.	β	t	Sig.	β	t	Sig.
Constant		13.902	.000		6.155	.000		3.990	.000
SIN	-.195	-2.945	.004	-.113	-1.881	.061	-.085	-1.641	.102
PIN	.010	.150	.881	-.013	-.210	.834	.011	.214	.831
PEIN	-.318	-5.003	.000	-.189	-3.189	.002	-.177	-3.469	.001
PEATT				.452	7.597	.000	.175	2.883	.004
ATT							.506	8.578	.000
R	.383 ^a			.572 ^b			.707 ^c		
R ²	.146			.327			.499		
F Δ	12.356			57.717			73.588		
Sig. F Δ	.000			.000			.000		

a. Predictors: (Constant), PEIN, SIN, PIN

b. Predictors: (Constant), PEIN, SIN, PIN, PEATT

c. Predictors: (Constant), PEIN, SIN, PIN, PEATT, ATT

(SIN = Social influences towards purchase intention. PIN = Past positive experience towards purchase intention. PEIN = Perceived behavioral control towards purchase intention)

conducted to test the modified model in three steps (Table 9). Step 1 includes social influence, past positive experience and perceived behavioral control where the R^2 is .146 and significance level is .000. This indicates that the model is significant but missing variables. Step 2 includes the same independent variables of social influence, past positive experience and perceived behavioral control but it adds attitude towards green products as a predictor, where the R^2 is .327 and the significance level is .000. This suggests that the model is improved and has fewer errors than the previous models. Step 3 includes another independent variable, specifically perceived behavioral control, which mediates the predictor. In all cases, purchase intention is the dependent variable. Here, the R^2 is .499 and the significance level is .000. The hierarchical multiple regression analysis indicates that all of the models are statistically significant. However, Model 3 better explains the dependent value than the other two models and it is strongly statistically significant.

When social influence increases by 1, purchase intention decreases by .195. This is an unexpected result (H4) because other scientific papers have found that it should rather be increased with the relation to the social influence and purchase intention. This might occur due to

the small size of the sample. However, the significance level for social influence and purchase intention is .004*, which is statistically acceptable (H4).

Purchase intention increases by .010 when past positive experience increases by 1. In this case, the relation between past positive experience and purchase intention is weakly correlated with a significance level of .881. This means that Hypothesis 6 (H6) is partly refuted.

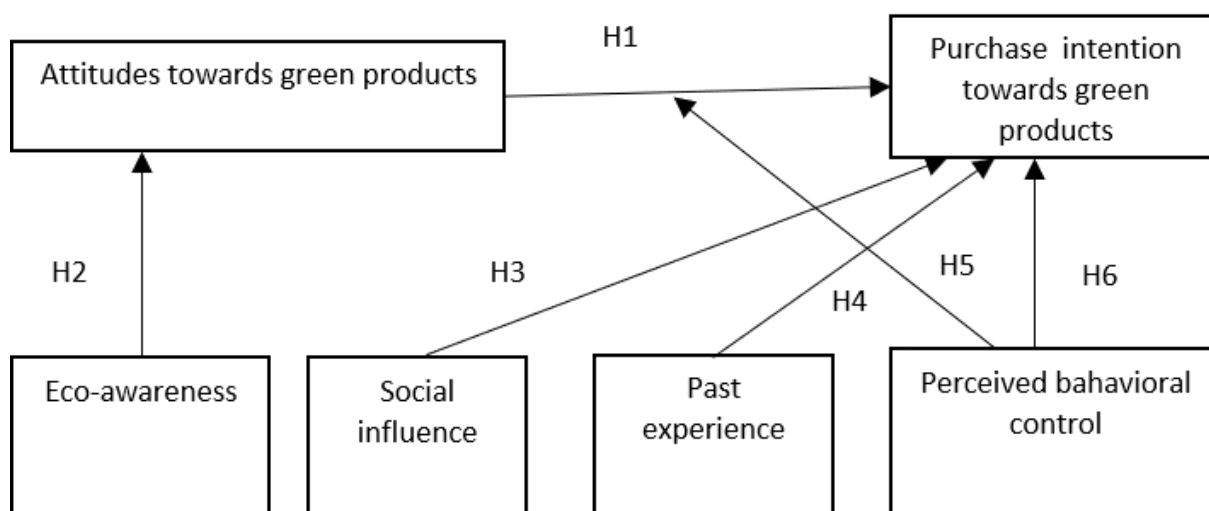
Perceived behavioral control and purchase intention have a statistically strong correlation at a level of .000***. However, the regression analysis did not reveal any interesting causal relationships between perceived behavioral control and purchase intention (H7).

Hypothesis 8 represents the mediating role of attitude and the purchase intention of green products. This study reveals that the correlation is .000* with a positive beta of .452. This result indicates that the hypothesis (H8) is confirmed.

Table 10 below summarizes the results of all of the hypotheses regarding purchase intention as discussed above.

TABLE 10: HYPOTHESES REGARDING PURCHASE INTENTION

Hypothesis	Result
H4: Individuals with strong social influences are more likely to exhibit green purchasing intentions compared with people with low social influences.	Partly confirmed
H6: An individuals' past positive experiences with organic products will have a positive influence on their purchase intention towards similar products.	Partly confirmed
H7: An individuals' perceived behavioral control related to buying green products has a positive influence on their intention to buy more of said products	Partly confirmed
H8: An individuals' perceived behavioral control related to buying green products mediates their buying intention.	Confirmed

**FIGURE 2: SUGGESTED HYPOTHESIZED MODEL****Summary of the results**

This paper has highlighted the factors that influence consumer attitude and the purchase intention of environmentally-friendly products. The results show that attitude towards green products, eco-awareness and perceived behavioral control have a strong influence on the individual's purchase decision. All of the hypotheses regarding the attitude towards green products, eco-awareness and perceived behavioral control have been partly or completely confirmed. On the other hand, it was found that social influence and past experience are very weakly correlated with purchase intention and the attitude towards green products. As the use of innovative green products has become a new trend in the market, social influences and past positive experiences do not motivate the purchase intention entirely. According to a study, the socio-demographic

variables have little to no influence on green consumer behavior (Jansson, Marell & Nordlund 2010). However, when individuals are deeply examined, it has been found that higher-educated individuals with better financial capabilities feel more positively towards environmentally-friendly products and they are willing to purchase green products in the future. This implies that they are better at adopting innovative and green products than other groups with low financial capabilities

DISCUSSION AND CONCLUSION

The purpose of this paper was to study green consumer behavior by analyzing the attitude of women towards purchasing organic cosmetics in Sweden as well as to determine the factors that influence their purchasing behavior. The data was collected from 220 respondents within two

weeks in May 2019 in order to accomplish the stated research objectives. The findings of the study indicate that the purpose of the study has been achieved. It has been established in this study that women are interested in buying more environmentally-friendly products and that more than 63% of respondents acknowledged that they have already purchased this type of product. According to our survey, 97 % of the respondents confirmed that they will buy environmentally-friendly products in the near future. The Theory of Planned Behavior confirmed that the attitude toward behavior, social influence and perceived behavioral control together shape intention (Chekima *et al* 2015). The framework of this study was modified by the model of Kim and Chung (2011). In the framework, eco-awareness is included as an independent variable based on the framework design by Cheah and Phau (2011). It is established that eco-awareness positively influences attitude towards green products and that attitude influences purchase intention directly. In this case, eco-awareness does not influence purchase intention directly, but it facilitates behavior through attitude.

Green consumers always believe in self-improvement and they are action-oriented which leads to positive change. They are interested in an ecological lifestyle, which refers to protecting the environment. Green consumers naturally welcome changes and take an interest in firms that do not harm the environment when launching new products (Paul & Rana 2012). However green buying is motivated not only by a good attitude towards the environment and social responsibility but also by other factors that must be considered such as education, social status, the price of the products, and the age of the customers (Kotler 2009). Additionally, green consumers are more concerned about the environment and sustainability and they have certain common features and preferences when they buy organic and natural cosmetics (Santos *et al.* 2015). This study has revealed that women not only choose ecological cosmetics due to health consciousness, but they also do so in order to prevent damage to the environment. Kim and Chung (2011) confirmed

the relationship between the independent variables of social influence, past positive experience and perceived behavioral control to the dependent variable of purchase intention. In this study, the relationship between social influence and past positive experience is not supported by attitude. However, it has been partly confirmed that social influence and past positive experience have an influence on purchase intention. The ecological cosmetic market is expanding all over the world. There are only a few retailers who distribute environment -friendly cosmetics in Sweden. Because of that, the study could not find a strong correlation between social influence and past positive experience towards attitude and purchase intention. Perceived behavioral control has confirmed its positive influence both on attitude and purchase intention. Moreover, this study found that some of the demographic factors play a role in influencing their behavior and intention to buy green products.

Currently, environmental consciousness is becoming a vital issue all over the world. Sweden is one of the top ranked countries in the EU in terms of consuming more organic foods, recycling garbage, investing in green technology and producing energy from renewable sources. Environmental knowledge evolves in one of two forms. One is where the consumers must be educated in order to understand the general impact of the product on the environment and the other is the consumer knowledge of the product itself being produced in an environmentally-friendly way (D'Souza *et al.* 2006). People's knowledge about the environment plays an important role in determining their behavior. When marketers know about the consumer behavior related to green products, they can outline the important factors that influence this behavior. In addition, this knowledge will help to shape attitude and intention through the belief system (Laroche *et al.* 2001). It was found in this study that Swedish consumers apparently prefer eco-friendly products over ordinary products. From the practitioners' perspective, it is high time for more companies to move towards having eco-friendly products and investigating what the factors are

that influence their purchase intention. Baker and Ozaki (2008) highlighted that consumers with high pro-environmental values are more likely to believe that green products will perform better than ordinary products. Pro-environmental values are very important for green products. Because eco products are new as well as innovative, people do not always know about the performance of the product. In these cases, pro-environmental values and beliefs can facilitate the actions related to environment friendly products.

Limitations and suggestions for further research

This study confirms several hypotheses based on the sample size of only 220 women in Sweden. Consumer quality varied. For example, there were students, full time employees, homemakers and self-employed individuals. As the study chose convenience sampling, the sample may be biased and thus it is not representative of the entire population. This study included only internal influencing factors and excluded external aspects which are also important to fully understand green consumers and their attitude and purchase intention. The demographic data was collected through specific survey questions to examine the consumers' profile which showed some interesting findings. However, these have not been shown in the results section as it is not included in the theoretical framework. Due to the fact that some of the hypotheses were not fully supported, it would be interesting to investigate them further in order to examine whether they can be refuted on the basis of stronger evidences. To this end, the authors would like to approach a larger sample size to get a more concrete understanding of the scenario.

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APPENDIXES

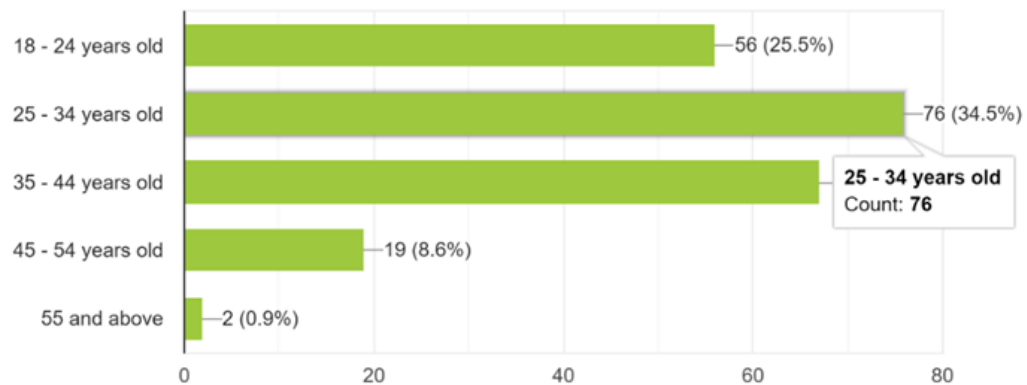
Operationalization

Variables	Reasons	Survey questions
Demographic profile	Younger household considers organic product more important when they purchase (Van Doorn and Verhoef, 2011).	How old are you?
		Are you a Swedish citizen or resident of Sweden?
	People with relatively high education (Straughan and Roberts, 1999) are highly involved in green consumption behavior (Wang 2014).	What is the highest level of education you have completed?
		What is your current employment status?
	Higher income households purchase organic produce more frequently (Paul and Rana (2012).	What is your average monthly income?
		Have you purchased any environmentally-friendly products during the last two months?
Eco-awareness	Individual's knowledge regarding the environment plays a multifaceted role in influencing one's behavior (Laroche <i>et al.</i> 1996; Cheah &Phau 2011)	I know how to preserve and not cause damage to the environment (Lee, 2017).I am concerned with the use of chemicals in cosmetics that can be hazardous for health
Social influence towards attitudes	people who believe in group interest are more likely to engage in environmentally-friendly behavior and emphasize group goals (Wang, 2014).	If I have little experience with a cosmetic product, I often ask my friends about the product (Cheah and Phau, 2011)
Social influence towards purchase intention	Azjen (2005) described Pressure group who are close to a person could create social pressure to perform a certain behavior.	I achieve a sense of belonging by purchasing the same cosmetic products and brands that others buy (Cheah and Phau, 2011)
Past experience with attitudes	Individuals past experiences can provide better predictions of behavioral attitudes (Kim and Chung, 2011).	I usually do not buy a cosmetic product if I do not have prior experience in buying a similar kind of product.
Past experience with purchase intention	Delgado-Ballester and Munuera-Aleman (2005) established that the trust of past experience influences the upcoming purchase decision.	I always buy a kind of cosmetic product with favorable past experience.
Perceived behavioral control towards attitudes	Perceived behavioral control is a degree of control where an individual perceives over performing the behavior (Chen, 2007; Kim and Chung,2011).	I believe that I have the resources and the ability to buy organic cosmetics. (Bansal and Taylor, 200)
Perceived behavioral control mediates purchase intention	Ajzen (2005), it is expected that those who perceive more behavior control have more intention to perform that behavior.	I face very high barriers in switching buying intention from ordinary to green products (Bansal and Taylor, 200)
Individuals attitude toward purchase intention	The favorable relationship between individuals' attitudes and behavioral intentions for green is diverse in a different culture (Kim &Chung 2011).	If an organic cosmetic is available, I will rather prefer to buy it.
Purchase Intention		How likely are you to purchase Green/Eco cosmetics in the next 3 months?

Demographic profile

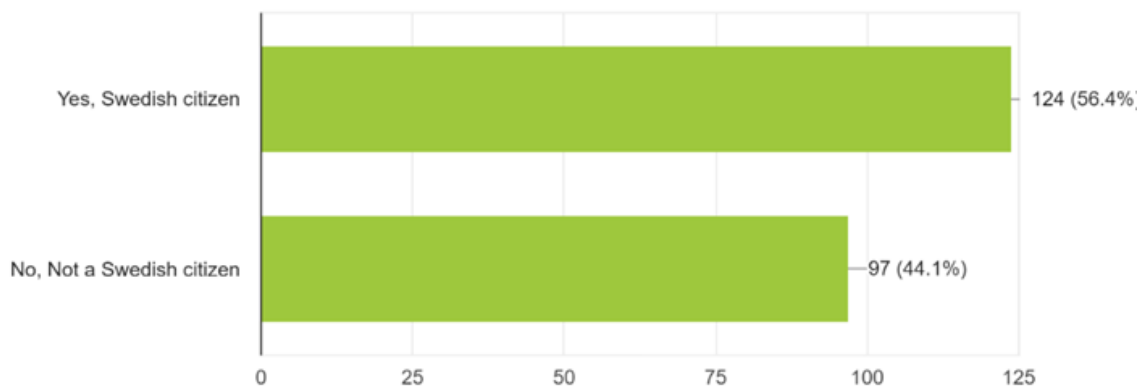
How old are you?

220 responses



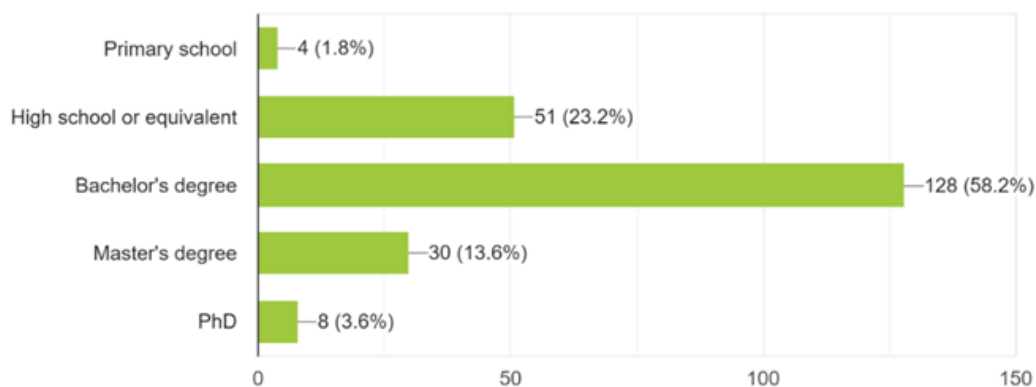
Are you a Swedish citizen or resident of Sweden?

220 responses



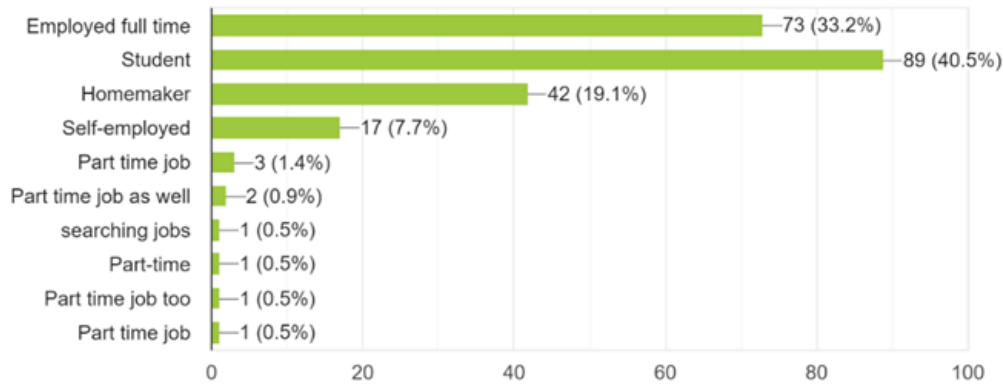
What is your highest level of education completed?

220 responses



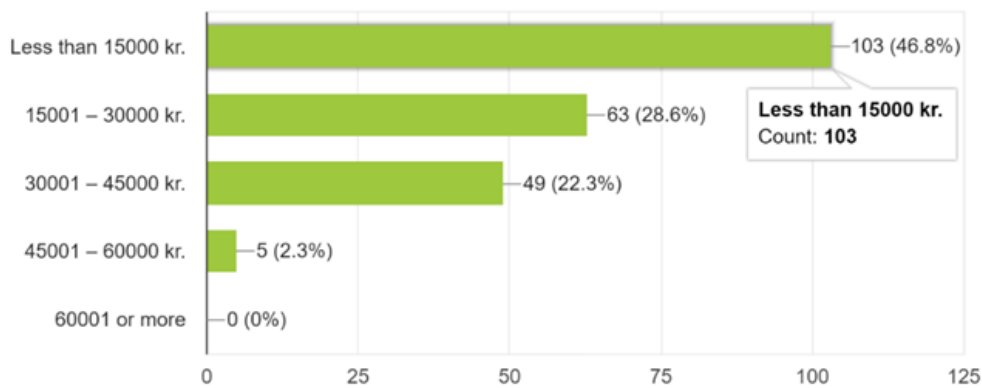
What is your current employment status?

220 responses



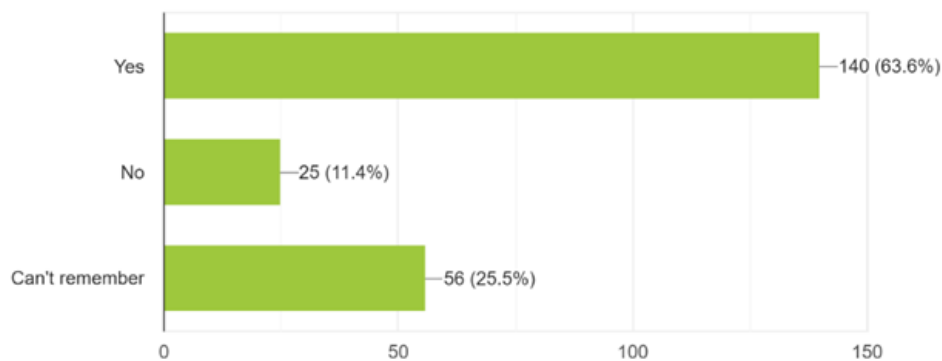
What is your average monthly income?

220 responses



Have you purchased any environmentally friendly products during the last two months?

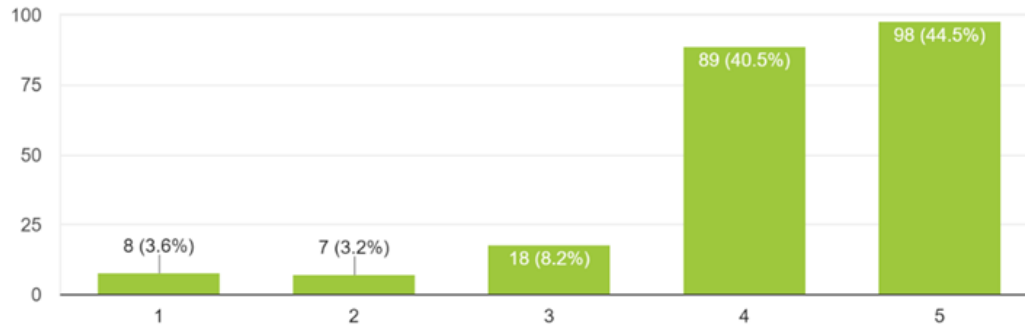
220 responses



Responses regarding framework

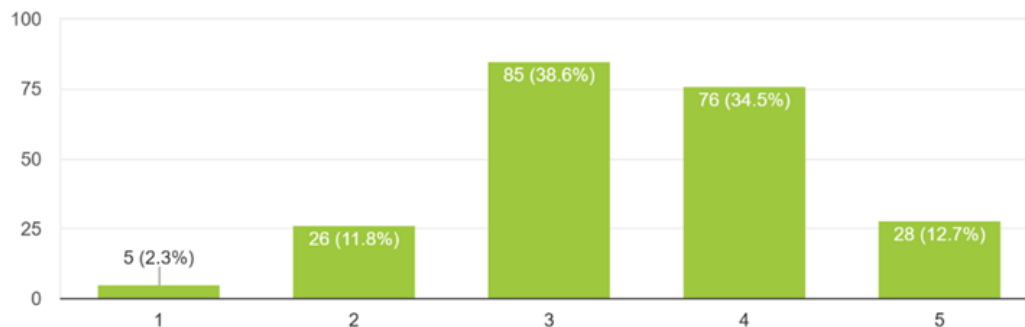
(Eco-awareness) I am concerned with the use of chemicals in cosmetics that can be hazardous for health

220 responses



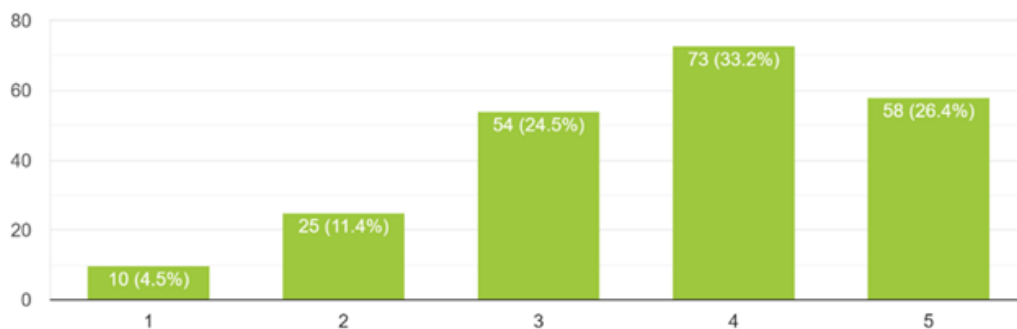
(Eco-awareness) I know how to preserve and not cause damage to the environment

220 responses



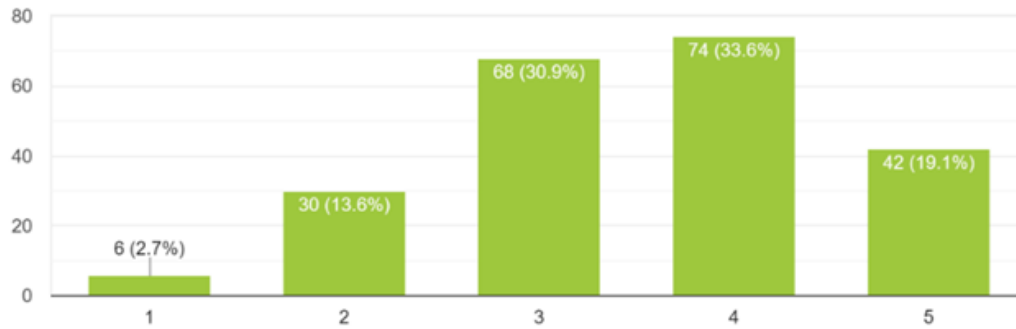
(Social influence - attitudes) If I have little or no experience with a cosmetic product, I often ask my friends about the product

220 responses



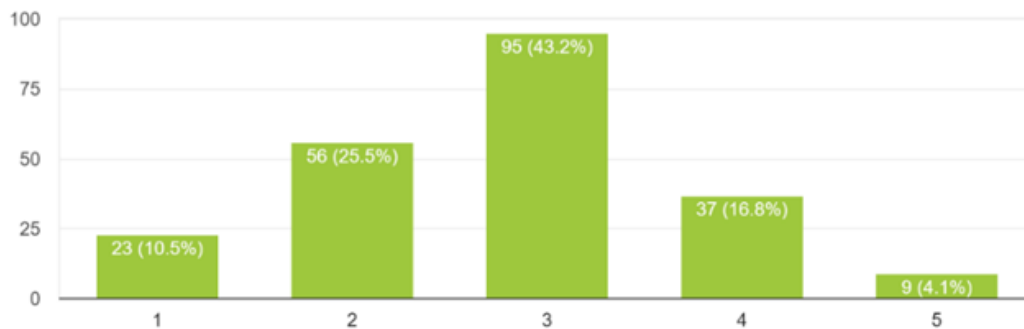
(Perceived behavioral control - attitudes) I believe that I have the resources and the ability to buy organic cosmetics.

220 responses



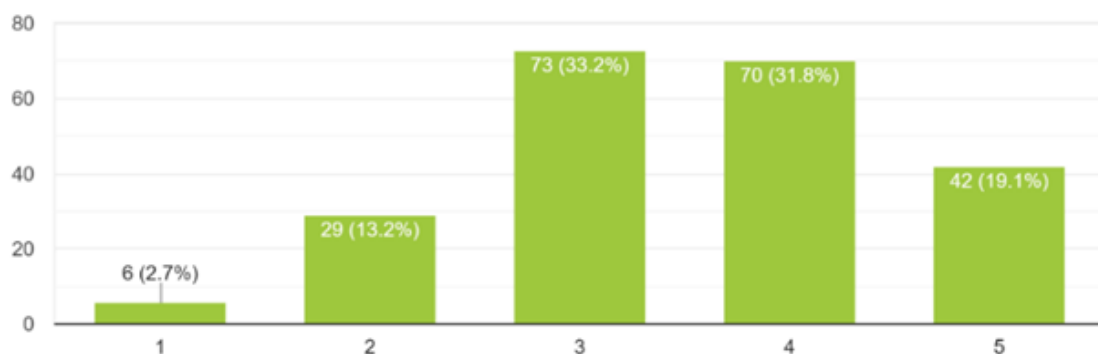
(Perceived behavioral control - intentions) I often face very high barriers in switching buying intention from ordinary to green products

220 responses



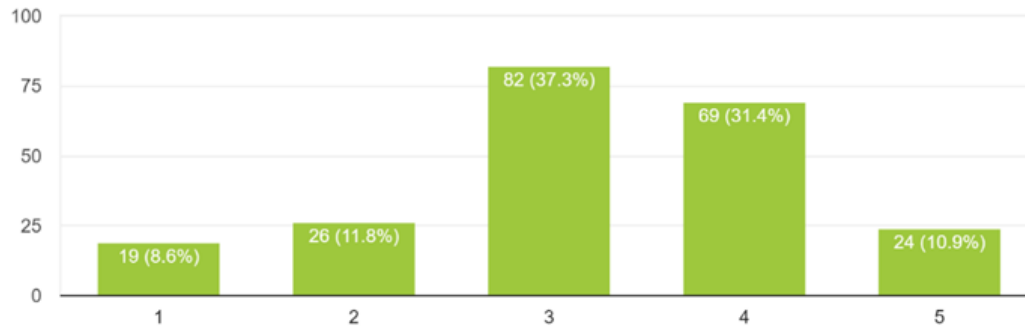
(Attitudes) If an organic cosmetic is available, I will rather prefer to buy it.

220 responses



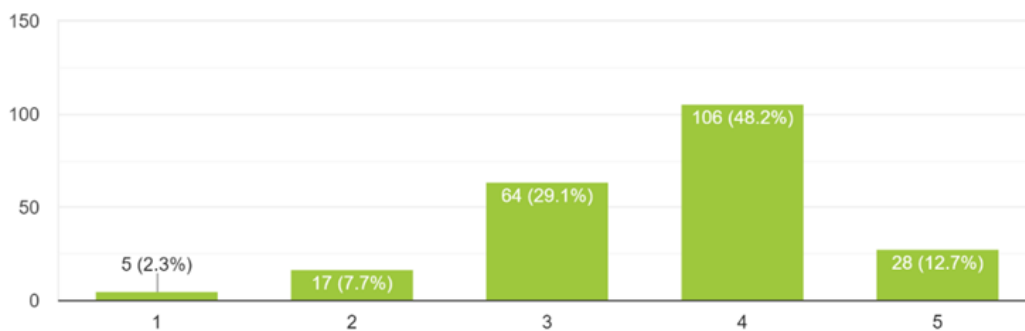
(Social influence - intentions) I achieve a sense of belonging by purchasing the same cosmetic products and brands that others buy

220 responses



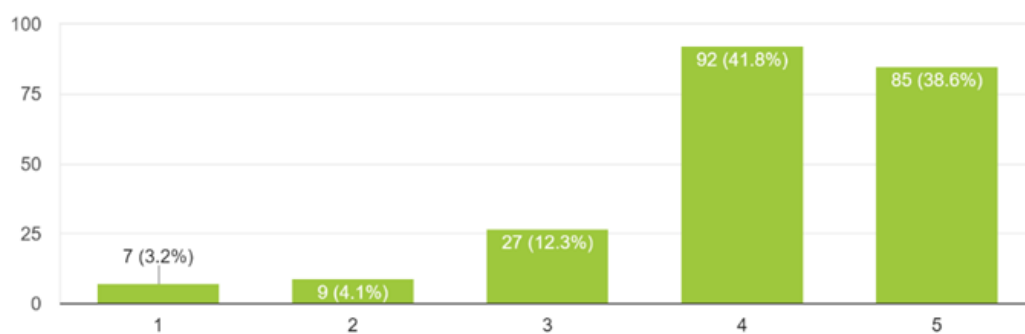
(Past experience - attitudes) I usually do not buy a cosmetic product if I do not have prior experience in buying a similar kind of product

220 responses



(Past experience - intentions) I always buy a kind of cosmetic product with favorable past experience.

220 responses



How likely are you to purchase Green/Eco cosmetics in the next 3 months?

220 responses

