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Green Skincare: Influence of Brand Image, Perceived Quality, and Price Perception on Purchase Intention

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Master in Marketing

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7th September 2023

Department of Marketing, Operations and General Management,

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Resumo

O principal objectivo desta pesquisa é fornecer uma melhor compreensão dos principais determinantes que moldam o comportamento do consumidor no setor de cuidados com a pele ecológicos (verdes). Esta dissertaçãoinvestiga a influência da imagem da marca, da qualidade percebida e da percepção de preços na intenção de comprar produtos de cuidados de pele ecológicos entre jovens adultas europeias.

Usando uma abordagem quantitativa, 160 respondentes participaram no questionário, concentrando-se apenas em mulheres europeias com idades entre 18 e 35 anos. O impacto da imagem da marca, qualidade percebida e percepção de preços na intenção de compra foi analizado recorrendo à base regressão linear, assim como as relaçõesentre eles.

Os resultados revelaram que, embora uma imagem de marca favorável seja essencial para a reputação da marca, ela não influencia diretamente a intenção de compra. No entanto, não existe uma correlação estatisticamente significativa entre a percepção do preço e a intenção de compra, o que sugere que os clientes priorizam a qualidade do produto e a preocupação com o ambiente sobre o preço. Em contraste, a qualidade percebida está fortemente correlacionada com a intenção de compra, destacando o seu papel essencial na formação do comportamento dos consumidores relativamente a produtos de cuidados de pele ecológicos. Embora tenha sido descoberto que a imagem da marca e a percepção do preço eram preditores significativos da qualidade percebida, nenhum dos fatores afeta diretamente a intenção de compra.

Em conclusão, esta pesquisa contribui com informação valiosa para a indústria da beleza e conselhos significativos em Marketing, consumo sustentável e omportamiento do consumidor. Os profissionais de marketing podem refinar as suas táticas paraadaptar-se efetivamente ao seu público, entendendo os elementos impulsionadores do consumo de cuidados de pele ecológicos.

Palavras-chave: cosméticos verdes, cuidados naturais da pele, comportamento do consumidor, percepção de consumidores, decisão de compra

Classificação JEL: L66- Cosméticos, M31- Marketing

Abstract

The increased public concern regarding diverse environmental issues has resulted in a shift in consumer behaviour, influencing their purchasing of green items. The quick growth of the global market for green skincare products outweighs other green cosmetic items. The main objective of this research is to investigate the key determinants that shape consumer behaviour within the green skincare sector. This thesis investigates the influence of brand image, perceived quality, and price perception on the intention to purchase green skincare products among young European female adults.

Using a quantitative approach, 160 respondents took part in the questionnaire, focusing only on European females aged between 18 and 35. The impact of brand image, perceived quality, and price perception on purchase intention was investigated by linear regression analysis, as were the interconnections between them.

Findings revealed that while a favourable brand image is essential for brand reputation, it does not directly influence purchase intention. However, there is no statistically significant correlation between price perception and purchase intention, suggesting that customers prioritise product quality and environmental friendliness over price. In contrast, perceived quality strongly correlates with purchase intention, highlighting its essential role in shaping consumer behaviour regarding green skincare products. Although it was discovered that brand image and price perception were significant predictors of perceived quality, neither factor directly impacts purchase intention.

In conclusion, this research contributes valuable insights for the beauty industry and significant advice in Marketing, green consumption, and consumer behaviour. Marketing professionals may refine their tactics to effectively adapt to their audience by understanding the driving elements of green skincare consumption. However, limitations include the sample size, and there may be unconsidered contextual, mediating, or moderating variables. Future studies could investigate these elements to gain a more comprehensive understanding.

Keywords: green cosmetics, natural skincare, consumer behaviour, consumer perception, purchase decision

JEL Classification: L66- Cosmetics, M31- Marketing

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List of Abbreviations:

- AVE: Average Variance Extracted
- BI: brand image
- CBBE: Customer Based Brand Equity
- CR: Composite Reliability
- E-WOM: electronic word-of-mouth
- IFOP: Institut d'études opinion et marketing en France et à l'international: Institute of opinion and marketing studies in France and abroad
- PI: purchase intention
- PP: price perception
- PQ: perceived quality
- TPB: Theory of Planned Behaviour

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1. Introduction

The global market value for natural and organic cosmetics and personal care has been forecast to increase significantly from 37 billion U.S. dollars in 2022 to 58.6 billion U.S. dollars in 2031 (Petruzzi, 2022), demonstrating the industry's expanding importance. Moreover, customers are encouraged to adopt eco-friendly cosmetics by the growth in environmental consciousness in society (Amberg & Fogarassy, 2019; Chin et al., 2018). Environmental concerns have gained popularity and significance in recent years in Europe, especially in France, where environmental and resource preservation are significant concerns in 2022 (Gautier, 2022). Within the beauty industry, skincare is the segment where natural goods are most interested (Shahbandeh, 2023), accounting for 31.9% of sales in 2020, followed by haircare for 25.6% (Statista Research Department, 2022). In contrast to other green cosmetic products, the market for green skincare products is the one that is expanding the fastest (Amberg & Fogarassy, 2019; Chin et al., 2018).

Furthermore, green skincare products are gaining popularity due to the growing concern for the environment and health (Meenakshi, 2018). The market for green skincare products is expanding rapidly compared to other green cosmetic items such as Hair care, Makeup and Oral care (Chin et al., 2018; Shahbandeh, 2023). After North America and Europe, the Asia-Pacific region is the primary growth engine for the cosmetics business globally (Simionato, 2022). Another notable place for organic and natural beauty is Europe. Natural beauty products are becoming increasingly popular among European consumers, particularly those from Western Europe (Shahbandeh, 2023).

Previous research has shown that environmental concerns and attitudes towards green skincare products significantly influence Malaysians' intention to purchase green skincare products (Mamun et al., 2020). Also, a study from Nekmahmud et al. (2022) examines the importance of social media in transforming consumers' intentions to purchase green products and suggests incorporating other dimensions, such as brand image. In addition, another academic article from Haddad et al. (2020) revealed that brand loyalty, perceived quality, and brand awareness positively affect green cosmetics purchase intention in Jordan.

Despite the growing popularity of green skincare products in recent years, there remains a significant gap in the literature regarding the effect and interplay of the specific constructs of brand image, perceived quality, and price perception on purchase intention. While previous

studies have explored the individual effects of these dimensions in various industries, limited attention has been given to their combined effects on female young adult's intentions to purchase green skincare products in Europe (Chin et al., 2018; Haddad et al., 2020; Mamun et al., 2020a; Meenakshi, 2018; Nekmahmud et al., 2022).

To address this research gap, this study intents to assist the relationships between brand image, perceived quality, and price perception on purchase intention among female young adults in the European market. The research will provide insight into the major factors influencing consumer behaviour in the green skincare market by examining the interrelated interactions between these dimensions. This study intends to assist marketers and producers of green skincare products in developing successful plans to increase customer purchase intent.

Furthermore, the demographic group of female young people chosen for this study is also paramount. The growing demand among this population for organic and natural cosmetic products justifies this choice (Shahbandeh, 2023). A study in France found that 59% of women aged 18 to 24 purchased organic cosmetics and hygiene products (IFOP, 2018). This suggests a growing preference for ecologically responsible solutions among people in this age range. Additionally, 45% of Generation Z (those who would turn between 11 and 26 years old in 2023) expressed a desire to know the ingredients in the beauty products they bought (Simionato, 2022). This emphasises the increasing consciousness among young adults about the composition and impact of the products they use. Additionally, a report by Cosmetics Europe (2017) revealed that 72% of individuals across all age groups associate cosmetics and personal care items with their general quality of life. Notably, the youngest age groups, particularly 16-24-year-olds and 25-34-year-olds, exhibited the highest level of value perception, with 76% and 79%, respectively, considering such products essential or fundamental to their quality of life. Since Generation Z and Millennials tend to be more brand-conscious, focusing on young European female adults between 18 and 35 years old will allow for a comprehensive exploration of their attitudes and behaviours towards green skincare products.

The specific research objectives of the present study are:

-To measure the impact of brand image, perceived quality, and price perception on the purchase intention of green skincare products among female young adults.

-To examine the interplay between brand image, perceived quality, and price perception on the purchase intention of green skincare products among female young adults.

-To provide recommendations for green skincare product manufacturers and marketers on improving brand image, perceived quality, and price perception to increase green purchase intention among females and young adults.

This study seeks to answer the following research questions:

RQ1- What is the effect of brand image, perceived quality, and price perception on customers' purchase intention towards green skincare products?

RQ2- How do brand image, perceived quality, and price perception interact to influence the purchase intentions of green skincare products among young female adults?

This research question allows for a focused examination of the interplay between these three dimensions and their impact on the purchase intention of young female adults. It also considers the specific context of the European market and the target demographic of young female adults.

The following section explains the theoretical background and defines the study hypotheses. A description of the methodology includes information on the sampling process, data collection, and data analysis techniques used in the quantitative study. Subsequently, the results are presented and discussed, highlighting the findings' theoretical and managerial implications. Finally, a summary of the main conclusions is presented, including identified limitations, and suggests potential avenues for future research.

2. Literature Review

2.1 Brand Image

Brand image is essential in today's competitive business environment. The term encompasses customers' perceptions and beliefs about a particular brand or product (Abosag & Farah Maya F, 2014). According to Aisah & Wahyono (2018), these perceptions play a vital role in shaping consumers' purchasing decisions, as they are naturally drawn to brands with a positive image. This highlights the significance of brand image in the purchase decision-making process.

In fact, a study has shown a positive correlation between brand image and purchase intention. For instance, a recent study found that brand image and e-WOM (electronic word-of-mouth) influence significantly and positively affected consumers' intention to purchase (Khoirunnisa & Albari, 2023). Moreover, consumers' beliefs and attitudes toward a product or its attributes contribute to forming a brand image and shaping their buying behaviour (Kapoor et al., 2022).

In recent years, consumers' growing environmental consciousness has led to an increased focus on environmentally friendly products. Hence, green brand image has emerged as a crucial factor in the green skincare industry (Simionato, 2022). According to Meenakshi (2022), a green brand image reflects a firm's orientation towards environmental values and its customers' awareness of the brand's environmental practices. Therefore, consumers are more likely to purchase skincare products from brands that they perceive to be environmentally friendly.

Furthermore, the brand equity model (Keller, 2009) connects its two components: brand awareness and brand image. In this model, brand awareness is the propensity for consumers to think of a brand name and the ease with which they do so (Godey et al., 2016). Additionally, brand image is defined as a set of customer perceptions and beliefs about a product or service. In other words, the perceptions about a brand that the brand associations in consumers' memory reflect. Thus, customers' perceptions of a brand will likely impact their attitudes and behaviour toward it (Song et al., 2019). In the context of luxury organic beauty products, a studyCliquez ou appuyez ici pour entrer du texte. brand image and perceived consumer effectiveness positively impacted consumers' attitudes toward purchasing such products (Lavuri et al., 2022).

In conclusion, brand image influences consumer behaviour, particularly in purchasing decisions. Therefore, a positive brand image helps build consumer trust and enhances the brand's reputation, increasing sales and profits.

2.2 Perceived Quality

Perceived quality is a fundamental element in customer satisfaction and loyalty. According to Zeithaml (1988), perceived quality refers to the customer's perception of a product's overall quality, including its features, performance, and value proposition. The concept of perceived quality is essential for companies to understand, as it influences customers' purchasing decisions.

In the context of organic products, perceived quality significantly impacts consumers' green buying behaviour. The Study has shown that consumers tend to choose organic products with high perceived quality (Kapoor et al., 2022). Organic products are often associated with superior quality due to their environmental friendliness and health benefits. Consumers are, therefore, more willing to pay a premium for organic products perceived as high quality.

Furthermore, several factors can influence perceived quality, including product features, customer expectations, and past experiences (Zeithaml, 1988). For instance, product features such as packaging, ingredients, and certifications can impact customers' perceived quality of organic skincare products. Customer expectations can also play a role in perceived quality, as customers may have specific expectations about the quality of organic products. Additionally, past experiences with organic products can influence customers' perceptions of their quality (Kapoor et al., 2022).

Also, it is worth noting that perceived quality can impact customer satisfaction and loyalty, leading to positive word-of-mouth and repeat purchases (Medeiros et al., 2016). Thus, companies that can effectively manage and enhance their perceived quality can create a competitive advantage in the marketplace.

According to Aaker (1991), Consumers' subjective evaluation of a brand's general product or service quality is known as perceived quality. Consumer views of value, reliability, and satisfaction are influenced by perceived quality. Furthermore, if consumers perceive a

brand as high quality, their perception becomes more positive, leading to increased purchase intention.

2.3 Price Perception

For customers, price perception refers to the value of money (monetary) and non-monetary sacrifices made to obtain a product (Petrick, 2004). The price is a significant extrinsic cue that consumers utilise to help them construct a core part of their perception of "monetary value." (Zeithaml, 1988)

Price can be defined as what is given up or sacrificed, in the eyes of the consumer, in order to receive a good. Given that price is a "give" rather than a "get" component of the model, this definition is consistent with Ahtola (1984) argument against incorporating monetary price as a lower-level attribute in multi-attribute models.

Another study found that different demographic groups have different levels of price awareness, with consumers who are female, married, older, and do not work outside the house having the highest levels of awareness (Zeithaml, 1988).

One of the main obstacles to adopting green products is the price (Gadenne et al., 2011; Yifeng et al., 2018). Accordingly, customers' purchasing, or consumption decisions may be severely impacted by the high costs of most environmentally friendly items (Connell, 2010). Nevertheless, because of how customers perceive the items, the impact of price on their purchasing decisions is more likely to differ (Tan et al., 2019). Also, future neutral attitudes may be more favourable given the rising understanding of natural and organic components and green manufacturing (Yifeng et al., 2018).

Consumer perceptions of price, quality, and value are essential in determining purchasing behaviour and product preferences (Valarie, 2014). Price influences consumers' perception of product alternatives significantly, mainly on their final purchase decision (Hsu et al., 2017) and purchase intention (Li et al., 2016; Medeiros et al., 2016; Moser, 2016).

Finally, price perception may also be used to characterise a customer's emotional reaction to purchasing a product, which could be seen as a positive or negative cue to act. For

instance, a customer's favourable price perception positively affects purchase intentions (Alford & Biswas, 2002; Petrick, 2004).

2.4 Green Skincare: product and sustainability

The terms "organic," "healthy," and "sustainable" are becoming more and more associated with "green consumption," mainly because these green goods and services lessen the negative impact of human activity on the environment. (Khan, 2013; Mamun et al., 2020b; Mostafa, 2005). According to Dangelico & Pontrandolfo (2010), green products can produce a reduced environmental effect and offer more environmental advantages when compared to conventional products.

Consumers' intention to purchase green products increased; therefore, Green Skincare as a type of Green Cosmetic also gained more attention among consumers. Skincare refers to all procedures that improve the appearance of the skin and treat skin conditions. Green Skincare is defined as products from botanical sources where the ingredient's integrity is maintained during production (Chin et al., 2018).

Under the general term "green skincare," natural products created with components found in or derived from nature are referred to. It may also be known as “Eco beauty” and apply to goods made from renewable and sustainable resources (LuxeBotanics, 2021). Green skincare products use organically derived components to "care" for the skin, making them better for the skin and the environment (Hsu et al., 2017).

2.5 Green Purchase Intention

Green purchase intention refers to the willingness of consumers to buy environmentally friendly products due to their concern for the environment (Meenakshi, 2022; Morrison, 1979). The Theory of Planned Behaviour (TPB) created by Ajzen (1991) was studied and interpreted by Carrington et al. (2010), suggesting that personal values, moral norms, internal ethics, and similar factors influence ethical consumers' purchasing intentions. Therefore, when evaluating consumers' green intentions, it is essential to consider several factors, such as beliefs, needs,

values, motivation, knowledge, demographics, and attitudes (Ahmad et al., 2023; Choi & Johnson, 2019).

Nowadays, consumers are more aware of the importance of living a healthy and sustainable lifestyle, and as a result, they are more likely to make greener choices and purchase eco-friendly, organic and self-protective products (Ghazali et al., 2017; Sajincic et al., 2021). Studies focusing on green cosmetics and skincare products showed similar insights; a more favourable attitude towards green skincare was associated with concerns about the environment and human health, which in turn was associated with purchase intention (Chin et al., 2018; Sajincic et al., 2021).

Furthermore, purchase intention is a critical factor that supports individuals' buying behaviour (Prentice et al., 2019).

Previous results also showed that green perceived value, attitude, and trust have a significant favourable influence on green purchase intention (Zhuang et al., 2021). Consequently, to increase consumers' green purchase intention, companies can focus on enhancing their brand image and perceived quality, as these factors significantly influence consumer behaviour (Aisah & Wahyono, 2018; Kapoor et al., 2022).

2.6 Consumer attitude towards eco-friendly skincare

Attitude designates an individual’s tendency to engage and acknowledge constantly toward a favourable or unfavourable direction (Tan et al., 2019). Hence, environmental attitude includes people's attitudes towards environmental preservation (Lee, 2006). Therefore, consumers are becoming more willing and open to using natural cosmetics, which supports that health and environmental consciousness will continue influencing consumer behaviour in the cosmetic market (Amberg & Fogarassy, 2019). However, the main conclusions of a study done in 2018 showed that the lack of knowledge and confusing market standards contributed to the ambivalent views towards green cosmetics (Yifeng et al., 2018).

In 2022, sixty-four per cent of consumers feel sustainability is essential when deciding which beauty products to buy. Twenty per cent look for eco-friendly packaging, twenty-five per cent look for eco-friendly materials, and thirty-eight per cent hunt for recipes free of dangerous chemicals (Herich, 22 C.E.).

Furthermore, consumers' choices to purchase green goods have frequently been linked to their underlying attitudes, perceptions of values, and behavioural intentions towards such goods (Lee, 2006; Maniatis, 2016).

This approach reflects their preferences about the desire to buy goods or services (Mamun et al., 2020b; Tan et al., 2019). Likewise, one's attitude towards organic personal care products significantly envisages the intention to purchase organic personal care products among female young adults (Mamun et al., 2020).

According to Sajincic et al. (2021), people more aware of environmental concerns have a favourable opinion towards bio-based components and are used to buying more ecologically friendly skincare. More studies also showed that people more concerned about the environment and their health tend to have a more positive attitude and are more likely to buy eco-friendly, organic, and self-protective items. (Alzubaidi et al., 2021; Hao & Chenyue, 2021; Kim & Chung, 2011; Sajincic et al., 2021; Yadav & Pathak, 2016)

In addition, results showed that using green brand assessment as a mediator, consumers' knowledge and trust in green brands had a positive and significant direct and indirect influence on their green purchasing behaviour (Mansoor, 2022).

2.7 Influence of personal values and beliefs, including age and gender

Also, it was shown that demographic factors like gender, age, and income have a beneficial influence on perceived quality and subsequent purchase intent (Medeiros et al., 2016). Compared to men, women tend to use less carbon, have more positive intentions towards green consumption, and buy green items more frequently (Zhao et al., 2021).

Furthermore, the influence of prior purchases and environmental awareness impact the buying decisions of green items. Individual purchasing intentions rely on the product's characteristics and the buying environment (Costa et al., 2021). Also, it has been discovered that pro-environmental thinking favours personal norms, which in turn influences green purchasing behaviour. The evidence also supports that pro-environmental beliefs mediate the interaction between "hedonistic values and personal norms" (Jaini et al., 2020).

More findings indicated that Generation Z's use of green items and willingness to pay extra for them may be influenced by environmental concerns, green future estimation, and perceived quality. Therefore, when changing their consumption habits, Generation Z is more adaptable (Gomes et al., 2023).

According to the Theory of Planned Behaviour (TPB), ethical consumers' intentions to purchase are influenced by internal ethics, moral standards, and personal values (Carrington et al., 2010). Moreover, a study by Hsu et al. (2017) found that the subjective norm and perceived behavioural control substantially influenced consumers' intentions to buy green skincare products. The study also clarified that variables like price sensitivity and place of origin might strengthen the beneficial impacts on the connections between purchase intention and its precursors. These results have significant theoretical and practical ramifications for comprehending and influencing customer behaviour regarding purchasing environmentally friendly goods.

3. Conceptual Model

Customer-based brand equity (CBBE) is defined as the effect of brand knowledge on customer response to a brand's marketing. Two components of brand knowledge are conceptualised by an associative network memory model: brand awareness and brand image. As a result, CBBE develops when the customer is aware of the brand and has favourable and memorable associations with it (Keller, 1993). The multidimensional concept of brand equity is commonly acknowledged for including brand awareness, brand image, perceived quality, and brand loyalty (Park & Namkung, 2022).

Consequently, the Customer-Based Brand Equity (CBBE) model is a practical, theoretical framework for this study to investigate the interplay between different brand elements and consumer behaviour defined here as purchase intention.

According to the CBBE model, a strong brand image can contribute to favourable brand associations and attitudes, leading to increased purchase intention. Thus, the CBBE model can explain H1 as follows:

Hypothesis 1 (H1): Brand image has a positive effect on purchase intention.

Similarly, perceived quality is a crucial brand equity driver and can positively influence purchase intention. High levels of perceived quality can lead to greater trust in the brand and increased loyalty, ultimately resulting in higher purchase intention. Therefore, H2 can be associated to the CBBE model as follows:

Hypothesis 2 (H2): Perceived quality has a positive effect on Purchase Intention.

Price perception is another significant factor influencing consumer behaviour and purchase intention. Consumers' perceptions of a brand's price can impact their willingness to pay and overall purchase intention. H3 can be explained by the CBBE model as follows:

Hypothesis 3 (H3): Price perception has a positive effect on purchase intention.

In addition, the CBBE model can also highlight the interdependence between the independent variables of brand image and price perception on perceived quality. Therefore, H4 and H5 can be explained by the CBBE model as follows:

Hypothesis 4 (H4): Brand image has a positive effect on perceived quality.

Hypothesis 5 (H5): Price perception has a positive effect on perceived quality.

Overall, the CBBE model provides a valuable framework for understanding the relationships between the selected brand elements and consumer behaviour and will help to explain the hypothesised relationships between brand image, perceived quality, price perception, and purchase intention in this study. Based on the information collected in the previous chapter and the proposed hypothesis, the following research model was developed:

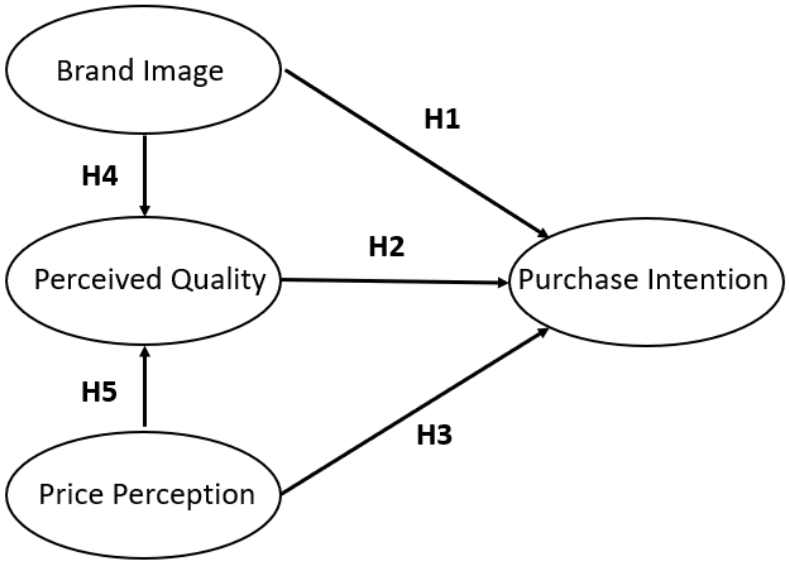


Figure 1: Conceptual model

4. Research Methodology

4.1 Research Design

Quantitative research appears appropriate within the confines of this research due to its ability to provide safety margins for making informed choices. The need to obtain precise measurements and quantify variables to evaluate specific hypotheses drove the decision to use quantitative research methods rather than qualitative ones. Furthermore, using quantitative methods enables the acquisition of objective insights, reducing researcher bias by emphasising empirical data and a structured questionnaire. Additionally, this approach allows for the inclusion of a broader range of individuals and a more diverse population, which would not have been achievable through qualitative research interviews.

4.2 Sampling and Participants

During the sample selection phase of this study, a conscious effort was undertaken to guarantee the inclusion of pertinent and representative participants. The study focused on a specific group; namely young adult females aged 18 to 35 who are residents of Europe.

To improve the pertinence of the study, participants with a demonstrated inclination towards skincare items were deliberately selected. The objective of this technique was to ascertain that the participants chosen to have pertinent views and experiences about the topic matter. By narrowing the demographic scope, the study aimed to gain a comprehensive understanding of the preferences and behaviours of this specific consumer segment regarding green skincare.

4.3 Data Source and Collection Methods

The utilisation of a questionnaire facilitates the quantification of participants' attitudes, preferences, and behaviours in a standardised manner. Using structured questions inside a questionnaire facilitates the direct comparison of results across various demographic

categories. Moreover, prior studies (Hsu et al., 2017; Low & Lamb, 2000; Park & Namkung, 2022) have indicated the existence of specific associations among variables. This methodology aids in the substantiation or enhancement of preexisting theories.

The data was obtained by distributing a questionnaire through social media platforms (Instagram, Facebook), online forums (Survey Circle), and close relatives. To guarantee the fulfilment of ethical considerations, participants were provided with explicit instructions and were requested to provide informed consent. Moreover, the questionnaire was pre-tested with a small group of individuals to identify potential ambiguities or issues, ensuring that the final version was clear and comprehensible to the participants.

The questionnaire implemented in this study was developed through Qualtrics Survey Software, which also facilitated data collection on IBM SPSS Statistics 28 using a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The quantitative data collection registered 210 respondents, with 160 valid responses, resulting in an effective response rate of 76.2%. To ensure a comprehensive understanding of the target population, the data collection process focused on recruiting a diverse and representative sample of females interested in green beauty products (Hair et al., 2014).

4.4 Variables Measurement Development

The questionnaire (Appendix A) was elaborated in English to test the hypotheses. The model used four primary constructs to measure the relationship between brand image, perceived quality, price perception and purchase intention.

The development of the measurement items has been driven by the objective of effectively capturing the underlying research constructs. All items were previously used in previous studies and have been incorporated into the current investigation either in their original form or with slight modifications. Each construct has been connected to a set of measurable items using a 5-point scale with the anchors 1-Strongly Disagree or Very Unlikely and 5-Strongly Agree or Very Likely and associated with reliable resources (Appendix A).

The structure of the questionnaire was divided into seven sections:

Part 1- Socio-demographic questions: Gender, Age and Nationality (3 questions)

Regarding the demographic variables, gender was measured between “female”, “male”, “non-binary/third gender” and “prefer not to say”. Age was measured and divided into seven groups (under 18, 18-24, 25-34, 35-44, 45-54, 55-64 and over 65 years old, respectively). Concerning nationality, the participants were presented with a selection of countries. If their country of origin was not listed, they could manually input their country of origin.

Part 2- Skincare consumption habits (5 questions)

The main objective of this section consisted of gaining insights into the consumption habits associated with green skincare products. It aimed to understand the frequency of individuals' usage of these products, the particular categories of green skincare products they employed, the determinants that influenced their selection of green skincare products, and their dispositions towards the use of green skincare. The data provided will help gather valuable insights into the respondents' usage, preferences, and underlying drivers about green skincare products.

Part 3- Brand image of green skincare products (5 questions).

In this section, the questionnaire aimed to evaluate the brand image associated with environmentally friendly skincare products. It measured the constructs using high-quality, environmentally friendly, trustworthy, and distinction items to assess respondents' thoughts and attitudes about the brand image of green skincare products. The selected items have been adapted from previous research studies (Chen & Ching, 2007; Godey et al., 2016; Hyunjung et al., 2012; Low & Lamb, 2000; Park & Namkung, 2022; Seo & Park, 2018) to ensure validity and reliability in measuring the brand image construct.

More precisely, the inquiries aimed to collect data regulated the influence of brand image on the perception of product quality, the significance of a green brand image in the process of making a purchase decision, the effect of a favourable brand image on trust and perceived quality, the likelihood of endorsing a green skincare brand with a positive brand

image, and the preference for a green skincare brand with a strong brand image over one with a weaker brand image.

Part 4- Perceived quality of green skincare products (8 questions)

This fourth section focuses on assessing the perceived quality of green skincare products. The measurement of this construct includes four distinct items: high quality, price-worthiness, efficacy, and superiority. They have been obtained from reliable sources (Aaker, 1991; Keller, 1993; Low & Lamb, 2000; Park & Namkung, 2022; Wallace et al., 2014; Yoo & Donthu, 2001), confirming the measurement's validity.

The responses from this section have contributed to the assessment of various aspects, including evaluating opinions regarding the quality experienced with green skincare products. Additionally, the impact of perceived quality on the brand image of green skincare products and the significance of perceived quality in premium pricing have been examined. Moreover, the belief that green skincare products are more effective than conventional alternatives has been explored, as well as the influence of ingredient and packaging quality on the perception of product quality. Lastly, a comparison between the quality of green skincare products and conventional skincare products has been conducted.

Part 5- Price perception of green skincare products (5 questions)

The objective here is to evaluate the perception of price concerning green skincare products. The measurement of this construct refers to three distinct items: value for money, affordability, and expansiveness. The items used in this study have been derived from prior research investigations (Chang, 2009; Hsu et al., 2017).

This section of the questionnaire examined the influence of price perception on individuals' purchasing intentions. Then, analysis of the willingness to pay a higher price for green skincare products if they perceive them to be of higher quality. Moreover, the study investigates the affordability of green skincare products, the importance of low prices in the purchase decision-making process, and the price comparison between green skincare products and conventional skincare products.

Through the analysis of participants' perceptions regarding price, this section contributes to understanding how consumers evaluate and make decisions about green skincare products' affordability and value for money.

Part 6- Purchase intention of green skincare products (3 questions)

This part of the questionnaire evaluates the intention to purchase environmentally friendly skincare products. The measurement of this construct is conducted through the utilisation of three distinct items: likely to buy, will buy once out of stock, and will consider buying. These items have been adopted from a study conducted by (Hsu et al., 2017), ensuring their reliability in measuring purchase intention.

The inquiries within this section are designed to delve into the respondents' intentions and willingness to purchase environmentally friendly skincare products. The study investigates the likelihood of respondents to purchase green skincare products, their propensity to buy them upon depletion of their current skincare products, and their contemplation of acquiring them immediately.

Part 7- Other demographics and characteristics: Education, Occupation, and Income (3 questions). Table 1 illustrates all information about the demographic characteristics of the respondents.

Finally, all measurement constructs were measured using a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). It is important to note that each section of the questionnaire focuses on different constructs (brand image, perceived quality, and price perception) and aims to capture unique consumer perceptions and attitudes related to green skincare products. By assessing these constructs, the study gains a holistic understanding of the factors that influence purchase intentions and consumer behaviour in the context of green skincare products.

4.5 Data Analysis Techniques

To examine the gathered data, employing statistical methods such as multiple linear regression analysis enables the assessment of the strength and direction of relationships among various independent and dependent variables within the framework of green skincare use. Applying linear regression models to statistically assess the validity or invalidity of the provided hypotheses enhances the empirical rigour of the study. This approach enables the quantification of the individual contributions of predictor variables in explaining the variance observed in the dependent variable. Consequently, it provides valuable insights into the distinct and combined influences of brand image, perceived quality, and price perception on the purchase intention of green skincare products among young female adults in Europe.

4.6 Limitations

The sample size utilized in this study is relatively small and may limit the robustness and generalizability of the findings. Increasing the sample size would result in a more extensive and inclusive portrayal of the intended population, facilitating more robust statistical deductions. Furthermore, it is important to note that the sampling methodology utilised in this study was non-probability-based, indicating that the selection of participants was not random from the overall population. However, the recruitment of participants was conducted via online platforms, which may have introduced some biases and restricted the generalizability of the findings to a broader population.

5. Results and Discussion

5.1 Results

5.1.1 Sample demographic characteristics

The survey recorded 160 valid participants, a total of 99.4% of the participants were recognised as women, as this was a prerequisite for being included in the study. In cases where participants were identified as men, their participation in the survey was terminated. Only one respondent preferred not to answer. Table 1 displays further demographic information related to the respondents.

Concerning the respondents' nationality, all of them are from Europe or currently live in Europe. More specifically, the majority are from France, representing 55.6% of the sample, 8.8% from Belgium, and 5% from The Netherlands. “Others” represents 16.9% of the population and are from Austria, Bulgaria, Albania, Croatia, Czech Republic, Malta, Romania and Switzerland. In “Others”, it was also identified respondents living in Europe but with non-European nationalities such as American, Brazilian, British, Chinese, Colombian, Swedish, Taiwanese and Thai.

Regarding the distribution of age groups, the 18-24-year-old category was the most popular, accounting for 70% of the participants. This was followed by the 25-34 age group, constituting 28.1% of the respondents. Consequently, 98.1% of the participants fall within our targeted audience and the rest have been removed from the sample as the study focus on young adults referring to those within the age range of 18 to 34 years.

In terms of education, more than 97% of the respondents possess a minimum of a bachelor's degree. Regarding their occupation, almost 50% of the participants are currently engaged in a full-time job, while 31.6% are students.

Concerning annual income level, it is seen that 32.3% of individuals make less than 20,000€, while 31% fall within 20,000€ and 39,000€. Additionally, 17.1% of respondents report earning between 40,000€ to 59,000€ and 8.2% more than 60,000€. Lastly, 11.4% preferred not to disclose this question.

Table 1- Socio-demographic characteristics of the respondent's sample

		N	%
Gender	Male	0	0,0%
	Female	159	99,4%
	Non-bainary/Third gender	0	0,0%
	Prefer not to say	1	0,6%
Age	18-24 years	112	70,0%
	25-34 years	45	28,1%
	35-44 years	1	0,6%
	45-54 years	2	1,3%
Nationality	French	89	55,6%
	Portuguese	2	1,3%
	Spanish	4	2,5%
	Italian	4	2,5%
	German	7	4,4%
	Belgian	14	8,8%
	Dutch	8	5,0%
	Polish	5	3,1%
	Other	27	16,9%
Education	High School	4	2,5%
	Bachelor's Degree	33	20,9%
	Master's Degree	118	74,7%
	Phd Degree	2	1,3%
	Associate Degree	1	0,6%
Current Occupation	Employed Full-Time	71	44,9%
	Employed Part-Time	10	6,3%
	Self Employed	7	4,4%
	Unemployed	10	6,3%
	Student	50	31,6%
	Other	10	6,3%
Annual Income	< 20,000€	51	32,3%
	20,000€-39,000€	49	31,0%
	40,000€-59,000€	27	17,1%
	60,000€-79,000€	6	3,8%
	80,000€-99,000€	6	3,8%
	> 100,000€	1	0,6%
	Perfer not to say	18	11,4%

5.1.2 Green Skincare Consumption Habits

Consumption habits

The survey results indicate that a significant proportion of respondents (52.5%) include green skincare products in their daily routine, demonstrating a solid commitment to eco-friendly skincare choices. Additionally, 10% of respondents reported using green skincare products between 4 to 6 times a week, indicating a considerable number of participants who regularly incorporate these products into their skincare routine. Moreover, 13.1% of respondents chose to use green skincare products once a week, while 15.6% use them two to three times each

week. A noteworthy finding was that 8.8% of respondents, who were the smaller group, said they never use green skincare products. Overall, the frequency of using green skincare products is 2.16 times a week, with moderate variation (standard deviation of 1.408) among respondents.

Furthermore, 50% of the respondents are strongly concerned about the components of their skincare products. The respondents' average score was 4.18, with a standard deviation 1.081. The higher mean score implies that, on average, the respondents have a positive tendency to care about the components of their skincare products. The relatively low standard deviation indicates a moderate agreement among respondents regarding this aspect.

Type Of Product

The responses provide insights into the types of green skincare products the respondents use. Among the skincare products, moisturisers are the most frequently used, with 97 respondents accounting for 61.4% of the total sample. Cleansers follow closely, with 55.1% indicating a significant preference for these products. Serums are used by 34.2% of the population, while green sunscreens are used by 41.8% of the sample. Additionally, 12.7% reported using other green skincare products such as oil, mask, body scrub and body lotion. Given that respondents may select from various product categories, it is significant to note that the overall percentage is more than 100%. This allowed for a thorough insight of respondents' skincare preferences and usage habits.

Influencing Factors

Among the listed factors influencing respondents' choices of green skincare products, “organic/natural ingredients” are the most influential, with 77.5% of respondents considering this aspect while making their skincare choices. Followed closely by the criteria "environmentally friendly”, influencing 60% of this population in their selection process. Price affordability is also a significant factor in decision-making, with 44,4% of respondents citing it, followed by “cruelty-free/vegan” (43,1%) and “ethical/sustainable packaging” (33,1%). Finally, 35% of respondents mentioned that personal recommendations played a role in their choice of green skincare products. Again, the total percentage exceeds 100% (293.1%) due to the multiple factor's respondents consider while making skincare choices.

5.1.3 Validity and Reliability

The validity and reliability of all items within each construct were evaluated before conducting analysis. Internal consistency was assessed using Cronbach's Alpha and Composite Reliability (CR) coefficients. Convergent validity was evaluated by examining the average variance extracted (AVE) values, representing the variation explained by factor loading. Therefore, the three tests conducted to assess the reliability of the items are Cronbach's alpha, Composite Reliability (CR), and Average Variance Extracted (AVE).

Cronbach's alpha test indicates that all constructs exhibit satisfactory reliability since their values exceed the suggested level of 0,70. Brand image (BI) revealed a Cronbach's alpha coefficient of 0.812, while perceived quality (PQ) demonstrated a coefficient of 0.765 and price perception (PP) of 0.723. In addition, purchase intention (PI) showed the highest Cronbach's alpha coefficient of 0.864 among the variables examined.

Table 2- Reliability Test Results using Cronbach's Alpha

Construct	Cronbach's Alpha	N of items
BI	0,812	5
PQ	0,765	8
PP	0,723	5
PI	0,864	3

The second test, Composite Reliability (CR), also indicates satisfactory reliability for all constructs. Values of CR exceeding 0.70 are considered acceptable, and in the present investigation, all constructs exhibit strong reliability. Brand image (BI) demonstrated a result of 0.971, perceived quality (PQ) of 0.973, price perception (PP) of 0.965, and purchase intention (PI) of 0.962, indicating a significant reliability of constructs.

The third test, Average Variance Extracted (AVE), assesses the extent to which the items in a test capture the variation in the construct of interest, considering the presence of measurement error. Values of 0.50 or more significant for the AVE are considered good since they indicate a strong level of validity. The present analysis demonstrates that all constructs have AVE values above 0.50, signifying acceptable validity. Brand image (BI) has an AVE of

0.536, perceived quality (PQ) of 0.513, price perception (PP) of 0.539 and purchase intention (PI) with the highest AVE of 0.720.

Table 3- Reliability Test Results using Composite Reliability and Average Variance Extracted

Variables	λ	λ²	1-λ²	CR	AVE
BI	0,775	0,601	0,399	0,971	0,536
	0,773	0,598	0,402		
	0,849	0,721	0,279		
	0,654	0,428	0,572		
	0,577	0,333	0,667		
PQ	0,644	0,415	0,585	0,973	0,513
	0,591	0,349	0,651		
	0,592	0,350	0,650		
	0,727	0,529	0,471		
	0,735	0,540	0,460		
	0,646	0,417	0,583		
	0,689	0,475	0,525		
PP	0,711	0,506	0,494	0,965	0,539
	0,695	0,483	0,517		
	0,718	0,516	0,484		
	0,805	0,648	0,352		
	0,737	0,543	0,457		
PI	0,864	0,746	0,254	0,962	0,720
	0,871	0,759	0,241		
	0,809	0,654	0,346		

In conclusion, all the constructs (Brand image, perceived quality, price perception, and purchase intention) exhibit satisfactory reliability and construct validity levels. The Cronbach's alpha, Composite Reliability, and Average Variance Extracted values provide evidence of the reliability of the measurement items within each construct. These findings validate the suitability of the questionnaire for evaluating the specified constructs in the context of this research.

Once the items' reliability is validated, Composite Scores have been generated for each construct, using their respective items. Several questions in the questionnaire were designed to assess a specific construct. Therefore, four composite scores for the four constructs have been devised to simplify the analysis process and have a single variable representing that construct's

overall measurement. This approach also helps reduce convergence risk when using these variables as predictors in multiple regression analysis.

Table 4- Descriptive Statistics of Quantitative Variables

Descriptive Statistics of constructs					
	N	Minimum	Maximum	Mean	Std. Deviation
Brand Image	160	1,2	5	4,089	0,642
Perceived Quality	160	1,5	5	4,054	0,517
Price Perception	160	2,6	4,6	3,846	0,374
Purchase Intention	160	1	5	4,081	0,798
Valid N	160				

5.1.4 Correlation test

Significant correlations between the variables were analysed based on the correlation analysis done using SPSS. Firstly, BI showed a positive and moderately strong correlation with PQ ($r = 0.485$, $p < 0.001$), as well as between BI and PI ($r = 0.210$, $p = 0.008$). This suggests a positive relationship exists between a positive brand image and customers' perception of more excellent quality and their inclination to purchase.

Secondly, it was observed that perceived quality demonstrates a positive and robust correlation with purchase intention ($r = 0.470$, $p < 0.001$), indicating that those with a more excellent perception of quality in green skincare products are more inclined to show intention to purchase these products.

Thirdly, price perception exhibited a positive and moderate correlation with perceived quality ($r = 0.313$, $p < 0.001$) and a weaker correlation with purchase intention ($r = 0.201$, $p = 0.011$). This finding suggests that the way customers perceive the pricing of green skincare products is associated with their opinion of the goods' quality and to a lesser degree, their desire to purchase.

Table 5- Correlation matrix table

		BI	PQ	PP	PI
BI	Pearson Correlation	1	0,485**	0,097	0,210**
	Sig. (2-tailed)		<0,001	0,222	0,008
	N	160	160	160	160
PQ	Pearson Correlation	0,485**	1	0,313**	0,470**
	Sig. (2-tailed)	<0,001		<0,001	<0,001
	N	160	160	160	160
PP	Pearson Correlation	0,097	0,313**	1	0,210*
	Sig. (2-tailed)	0,222	<0,001		0,011
	N	160	160	160	160
PI	Pearson Correlation	0,210**	0,470**	0,201*	1
	Sig. (2-tailed)	0,008	<0,001	0,011	
	N	160	160	160	160

** Correlation is sginicant at the 0,01 level

* Correlation is significant at the 0,05 level

5.1.5 Hypothesis testing through multiple linear regression

On IBM® SPSS statistics 28, positive correlations among the variables of interest enable the application of multiple linear regression analysis to investigate the extent to which these relationships contribute to the prediction of the dependent variable. The experiment was conducted to test the three first hypotheses (H1, H2 and H3) using the dependent variable PI and the independent variables BI, PQ, and PP, which establish the theoretical model as follows: $PI = \beta0 + \beta1(BI) + \beta2(PQ) + \beta3(PP) + E$.

In table 6, the R-squared value is 0.225, indicating that approximately 22.5% of the variability of purchase intention can be explained by the independent variables (brand image, perceived quality, and price perception). The adjusted R-squared, which accounts for the number of predictors and the sample size, is 0.210. This suggests that the model is poor and that more exploratory variables are needed.

Table 6- Model Summary of Multiple Linear Regression Test 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,474a	0,225	0,21	0,70948

a Predictors: (Constant), Price Perception, Brand Image, and Perceived Quality

Table 7 displays the model's overall significance through the variance analysis (ANOVA). The obtained F-value of 15.068 and a p-value below 0.001 provide evidence of the model's statistical significance. This implies a substantial relationship between the independent variable BI, PQ and PP on the dependent variable, PI.

Table 7- ANOVA table of the multiple regression test 1

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22,753	3	7,584	15,068	<,001[b]
	Residual	78,524	156	0,503		
	Total	101,277	159			

a Dependent Variable: Purchase Intention

b Predictors: (Constant), Price Perception, Brand Image, and Perceived Quality

Furthermore, in table 8, the beta coefficients represent the strength and direction of the relationships between the independent and dependent variables. The brand image variable has a negative beta coefficient of -0.024 with a p-value of 0.810, indicating a non-significant relationship with purchase intention. The price perception variable has a positive beta coefficient of 0.124 with a p-value of 0.436, indicating a non-significant relationship with purchase intention. Finally, it was shown that the perceived quality variable has a positive beta coefficient of 0.713 with a significant p-value <0.001, showing a strong positive relationship with purchase intention.

The findings from the linear regression analysis indicate that the variable perceived quality demonstrated to be a significant predictor of purchase intention, supporting hypothesis 2 (H2). Nevertheless, the analysis revealed no significant relationship between brand image and price perception on purchase intention. Consequently, the results do not support Hypothesis 1 (H1) and Hypothesis 3 (H3) at the 0.05 significance level.

Table 8- Coefficients table of the multiple regression test 1

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	0,813	0,672		1,211	0,228
	Brand Image	-0,024	0,1	-0,019	-0,241	0,81
	Perceived Quality	0,713	0,131	0,462	5,451	<,001
	Price Perception	0,124	0,159	0,058	0,781	0,436

a Dependent Variable: Purchase Intention

In addition, another linear regression analysis was carried out on IBM® SPSS Statistics 28 to investigate the relationship between perceived quality (dependent variable) and two independent variables, namely brand image and price perception. The following observations are derived from the data supplied in the tables. The experiment was conducted to test the hypotheses 4 and 5 (H4 and H5) using the dependent variable PQ and the independent variables BI and PP, which establish the theoretical model as follows: $PQ = \beta0 + \beta1(BI) + \beta2(PP) + E$.

In Table 9, the model summary presents the R-squared value of around 0.307. This value signifies that approximately 30.7% of the variability of perceived quality can be explained by the independent variables (brand image and price perception). The adjusted R-squared value, which considers the number of predictors and the sample size, is determined to be 0.298. This suggests that the model has a moderate level of adequacy, explaining a considerable proportion of the variation in perceived quality.

Table 9- Model Summary of the multiple regression test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,554a	0,307	0,298	0,43295

a Predictors: (Constant), Price Perception and Brand Image

Table 10 represents the ANOVA table, which displays the overall significance of the model. The obtained F-value of 34.751, accompanied by a p-value less than 0.001, indicates that the model is statistically significant, suggesting that the independent variables collectively predict perceived quality significantly.

Table 10- ANOVA of the multiple regression test 2

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13,028	2	6,514	34,751	<,001b
	Residual	29,429	157	0,187		
	Total	42,457	159			

a Dependent Variable: Perceived Quality

b Predictors: (Constant), Price Perception and Brand Image

Then, Table 11 displays the beta coefficients, representing the strength and direction of the relationships between the independent variables BI and PP and the dependent variable PQ. The brand image variable has a positive beta coefficient of 0.370 with a p-value less than 0.001, indicating a strong positive relationship with perceived quality. The price perception variable also has a positive beta coefficient of 0.371 with a p-value less than 0.001, suggesting a moderate positive relationship with perceived quality.

The results from the linear regression analysis indicate that brand image and price perception significantly influence perceived quality. Positive beta coefficients suggest that higher levels of brand image and price perception are associated with higher levels of perceived quality. Consequently, this study's findings support Hypothesis 4 (H4) and Hypothesis 5 (H5), which propose that brand image and price perception positively affect perceived quality.

Table 11- Coefficients of the multiple regression test 2

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,116	0,4		2,788	0,006
	Brand Image	0,37	0,054	0,459	6,877	<,001
	Price Perception	0,371	0,092	0,269	4,024	<,001

a Dependent Variable: Perceived Quality

5.2 Discussion

The results indicate that the sample of respondents comprises young, educated females residing in Europe, making the findings pertinent to the research topic. Moreover, the responses revealed that the population within this demographic prioritises environmentally conscious and clean beauty practices when making decisions regarding skincare products. This determining preference indicates a growing trend toward sustainability within the beauty industry. These results align with previous research (Cosmetics Europe, 2017; IFOP, 2018; Simionato, 2022), presenting the targeted population of female adults aged between 18 and 34 a relevant choice more conscious than other generations regarding green solutions and expressing a higher desire to be aware of the compositions of products they intent to buy.

This research gathers valuable insights about the preferences and considerations of respondents about their habits concerning green skincare products. These insights prove crucial in enhancing our understanding of the purchase behaviour exhibited by the targeted population. The study results indicated that moisturisers and cleansers are the most popular product types, suggesting their significant presence in the skincare routines of the surveyed individuals. The results found in the study confirm the statements made in the study from Shahbandeh (2023), which refers to moisturisers as the most used skincare products.

Moreover, respondents showed a strong inclination towards products with organic/natural ingredients, indicating a growing demand for clean and eco-friendly formulations. This confirms a study from Chin et al. (2018) supporting that consumers' intention to purchase green gained more attention among consumers.
Price affordability is another crucial aspect influencing consumers' choices, suggesting that competitive pricing strategies can favour purchasing decisions. The findings highlight the importance of considering multiple factors, such as cruelty-free/vegan options, ethical/sustainable packaging, and personal recommendations, in marketing strategies to attract and retain environmentally conscious customers. These statements confirm the findings of previous studies (Connell, 2010; Gadenne et al., 2011; Yifeng et al., 2018), affirming that green product high prices are one of the main obstacles. Therefore, the high cost of environmentally friendly products negatively impacts on consumers' purchase.

Concerning the relationship between the constructs, the results showed that a positive brand image was associated with higher perceived quality and increased purchase intention among consumers. Likewise, individuals with a higher perception of quality in green skincare items showed a stronger intention to purchase them. This study's results indicate a correlation between a favourable brand reputation and a heightened perception of product excellence. This, in turn, impacts consumers' inclination to buy environmentally friendly skincare items. However, the statistical study did not produce statistically significant findings on the relationship between brand image and buy intention, as well as between price perception and purchase intention. Hence, these findings provide valuable insights into the interconnections among these constructs, substantiating the theoretical framework of the research. Additionally, this suggests that other variables may exert a more significant influence on customers' purchasing choices.

Following research question 1 about the effect of brand image, perceived quality and price perception on customer's purchase intention towards green skincare products, the linear regression tests supported hypothesis 2 and not supported hypotheses 1 and 3. Regarding hypothesis 1, the relationship between brand image and purchase intention was not statistically significant. This implies that although a positive brand image is essential for establishing a brand reputation and attracting consumers' interest, it may not be the predominant factor influencing their intention to purchase green skincare products among this demographic. This contradicts the findings of studies (Aisah & Wahyono, 2018; Khoirunnisa & Albari, 2023) highlighting the direct influence of brand image on purchase decision making process. which found positive relationships between brand image and purchase intention through a mediator. Similarly, hypothesis 3 revealed that the relationship between price perception and purchase intention was not statistically significant. This result is not in line with the opinion of Alford & Biswas (2002) and Petrick, (2004) which suggest that Price perception influence positively the purchase intention. However, the results supported Hypothesis 2, indicating that perceived quality significantly predicts purchase intention. This finding is also consistent with the past study that exerts positive effect between perceived quality and purchase intention (Kapoor et al., 2022; Zeithaml, 1988). The impact of customers' judgements regarding the quality of products on their propensity to choose environmentally friendly skincare products holds considerable significance.

The second linear regression analysis findings supported hypotheses 4 and 5, which pertain to the influence of brand image, perceived quality, and price perception on purchase intention towards green skincare products, as stated in research question 2. The results supported hypothesis 4, indicating that brand image significantly influences perceived quality. This implies that a positive brand image has the potential to cultivate a favourable opinion of product quality among consumers, hence augmenting their overall contentment with green skincare products. Additionally, the study's findings supported Hypothesis 5, suggesting that price perception significantly impacts perceived quality. Therefore, Consumers' perception of pricing can influence how they perceive the quality and value of green skincare products.

5.3 Theoretical and Managerial Implications

By challenging previous findings on this field, this research broadens the understanding of the subject. Previous studies about green skincare concentrated their investigations on the Asian continent, such as Malaysia, Indonesia, and Taiwan (Chin et al., 2018; Hsu et al., 2017; Mamun et al., 2020a).

Furthermore, this study contributes to related specific consumer behaviours such as brand image, perceived quality, and price perception on purchase intention among females from 18 and 35 years old in Europe.

Moreover, the findings of this study contribute to the existing theoretical knowledge in the field of green skincare products and consumer behaviour (Chin et al., 2018; Mamun et al., 2020a; Mansoor, 2022). By not validating the theoretical framework and testing the proposed hypotheses, this research provides valuable insights into the factors influencing consumers' purchase intention towards green skincare products among European females aged between 18 and 35. Moreover, it is the first study restricted to female young adults in this age range.

Overall, the theoretical implications of this study provide valuable insights into the complex interplay of factors that drive consumers' choices in the green skincare product market and can be visualised below (Figure 2).

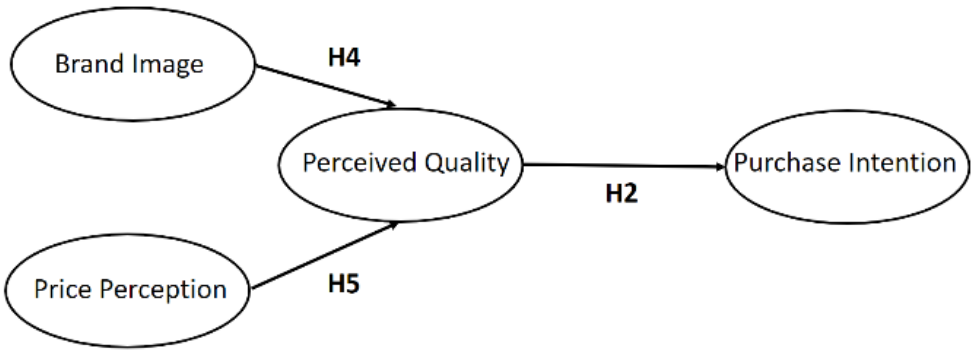


Figure 2: Supported research hypotheses

The findings of this study hold significant practical significance for professionals in the marketing and practitioner sectors of the beauty industry, namely those engaged in creating and promoting green skincare products. The robust positive association between brand image and perceived quality underscores the significance of investing in developing a favourable

brand reputation that highlights sustainability, eco-friendliness, and ethical practices. The establishment of a robust brand image has the potential to impact consumers' evaluations of product quality, hence resulting in heightened levels of satisfaction and loyalty towards green skincare products.

Furthermore, the significant impact of perceived quality on purchase intention emphasises the crucial role that product quality has in shaping customer buying decisions. To attract environmentally concerned consumers, marketers must prioritise providing skincare products with high quality, effectiveness, and sustainability. Emphasising the natural and organic ingredients in the product formulations can further enhance consumers' perceptions of product quality and value.

Moreover, the finding that price perception does not directly impact purchase intention implies that consumers in this demographic prioritise product quality and eco-friendliness over pricing when making decisions about green skincare products. Nevertheless, the significance of competitive pricing strategies should not be disregarded. Marketers must achieve a harmonious equilibrium between pricing and product quality to attract more environmentally concerned consumers.

In conclusion, this study provides valuable insights for marketers and professionals seeking to capitalise on the growing demand for green skincare products among European young female adults. By comprehending the various aspects influencing consumers' purchase intention and perceptions of product quality, marketers can tailor their marketing strategies and product offers to efficiently cater to this target audience's needs and preferences. Furthermore, this research provides opportunities for additional exploration and comprehension of consumer behaviour within sustainable and environmentally conscious skincare products.

6. Conclusion

6.1 Main Conclusions

In conclusion, this thesis addresses the dynamic interplay among brand image, perceived quality, price perception, and purchase intention of green skincare products within the demographic of female young adults in Europe. The research objectives were aimed at examining these intricate relationships and offering actionable insights for practitioners in the beauty industry. The key findings of this study underscore the nuanced nature of consumer behaviour in green skincare. While a positive brand image remains crucial for attracting attention and building a reputation, it is essential to note that it does not directly translate into increased purchase intention. Similarly, the statistical insignificance of the association between price perception and purchase intention implies that customers place more importance on product quality and eco-friendliness than pricing. Notably, the study establishes a significant connection between perceived quality and purchase intention, highlighting the crucial role of high-quality compositions. This demographic emphasis offers priceless insights into what motivates consumers' purchase decisions. The practical implications of this research extend to marketing professionals who aim to tap into the burgeoning demand for sustainable skincare products. Companies may use these insights to customise their strategies, foster brand loyalty, and successfully reach customers who care about environmental consciousness.

6.2 Limitations and Future Research Directions

Upon conducting the study, it was identified several limitations that need consideration when interpreting the findings. While this research significantly contributes to the existing literature on the purchase intention of green skincare products and the effects of brand image, perceived quality and price perception, it is essential to acknowledge its limitations.

First, this research intended to study whether and how BI, PQ and PP affect green PI on green skincare products. It strictly focuses on these three brand dimensions influencing the intention to buy green skincare products. Moreover, this research did not comprehensively investigate the potential impact of cultural, social, and economic effects on consumer behaviour despite recognising these contextual aspects.

Furthermore, it is essential to note that the creation of the measurement items has been driven by the objective of accurately capturing the research constructs previously used in academic studies. Additionally, it is necessary to acknowledge that constructs such as band image and perceived quality are inherently subjective and based on respondents' perceptions. While efforts were made to use validated measures, individual interpretations and understanding of these constructs might vary.

In addition, a constraint to consider is the sample size. Despite achieving a satisfactory response rate, it is worse to note that the sample size might still be considered relatively modest. Consequently, this may have implications for the statistical power and generalizability of the obtained findings.

Then, it is pertinent to note that the scope of this study focused only on skincare products within the green skincare category. This included various items such as moisturisers, serums, cleansers, body creams, etc. It was attempted to use this focused category of green cosmetics as it has exhibited the most rapid growth.

Also, this study mainly focuses on a specific demographic group, namely European females between 18 and 35. By exclusively targeting this demographic, the generalizability of the findings to broader populations might be limited. It is essential to acknowledge that consumer behaviours and preferences may exhibit substantial variations across diverse age groups, genders, and cultural contexts. Moreover, the utilisation of a non-probability sample in this study signifies that the inferences made apply only to the research participants. Therefore, extrapolating these findings to a larger population should be cautiously approached.

One final limitation of this study is related to using English as the predominant language in the survey questionnaire. Given that English may not be the native language for a significant number of participants, it is plausible that some participant's survey questions may have posed challenges in terms of complete comprehension or appropriate expression of results. A language barrier may have impacted the accuracy and comprehensiveness of the respondents' responses, possibly compromising the integrity of some data points that were gathered.

Concerning future research direction, other dimensions, such as brand loyalty, brand awareness, and external influences, might have yielded advantageous outcomes and can be addressed as new potential constructs in future research. Furthermore, it can be beneficial for future studies to include individual-level elements, such as attitudes, knowledge, or personal qualities, to better understand this association. In addition, it is suggested that future research have a broader range of items, including those within the beauty industry.

Finally, to obtain a more comprehensive understanding, it is necessary to conduct additional studies using diverse samples. Future studies could consider expanding the sample to include a more diverse range of age groups, genders, and geographical locations to enhance the external validity and applicability of the research findings.

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Appendices

Appendix A- Questionnaire

Questionnaire:

1. What's your gender?
2. What's your age?
3. What's your Nationality?
4. How frequently do you use green skincare products?
5. Which of the following types of green skincare products do you use? (Select all that apply)
6. What factors (in this list) influence your decision to choose green skincare products? (Select all that apply)
7. Using green skincare is important for me.
8. I care about the components of my skincare products.
9. A strong brand image for green skincare products enhances your perceived product quality.
10. A green Brand Image is important when considering purchasing green skincare products.
11. "Positive brand image makes you perceive green skincare products as more trustworthy and qualitative?
12. You are more likely to recommend a green skincare brand with a positive brand image to others."
13. How likely are you to choose a green skincare brand with a strong brand image over one with a weaker brand image?
14. "Overall, the green skincare products you have already used is high-end quality.
15. High perceived quality influence positively the brand image of green skincare products."
16. Perceived quality is important when considering paying a premium price for green skincare products.
17. "The quality perception of green skincare products implies better effectiveness than conventional skincare products.
18. The perception of the quality of green skincare products is mainly defined by its ingredients and packaging quality. "
19. "Green skincare products are of higher quality compared to conventional skincare products.
20. How likely are you to repurchase a green skincare product based on your perception of its quality?
21. Perceived quality of green skincare products influences your purchase intention."
22. "Price Perception of green skincare products influences your purchase intention.
23. How likely are you to pay a higher price for green skincare products if you perceive them to be of higher quality?"
24. "Green Skincare products are affordable.
25. Low Price is important when considering the purchase of green skincare products».
26. Green skincare products are more expensive than conventional skincare products.

27. How likely are you to buy green skincare products?
28. How likely are you to buy green skincare products as soon as you run out of the skincare products you are currently using?
29. You will consider purchasing green skincare products in the near future.
30. What is your level of education?
31. What is your current employment status?
32. What is your current annual household income?

Appendix B - Structure of Constructs and Measurement Items

Construct	Original Items	Adapted Measurement Items/Question (5-point scale anchored by 1- Strongly Disagree or Very Unlikely and 5-Strongly Agree or Very Likely)	Sources
Brand Image (BI)	High-Quality	BI1: I think that a strong brand image implies high-quality	Chen & Ching, (2007)
	Environmentally friendly	BI2: I think that a green brand image is important when considering a purchase	Godey et al., (2016)
	Trustworthy	BI3: I think that a positive brand image implies better quality.	Hyunjung et al., (2012)
	Differentiation	BI4: I choose a green skincare brand with a strong brand image over a weaker one.	Low & Lamb, (2000)
			Park & Namkung, (2022)
			Seo & Park, (2018)
Perceived Quality (PQ)	High-quality	PQ1: I think that green skincare is high-quality.	Aaker, 1991
	Priceworthy	PQ2 : I think that perceived quality is important when paying a higher price	Keller, 1993
	Effectiveness	PQ3 : I think that perceived quality implies effectiveness.	Low & Lamb, 2000
	Superiority	PQ4: I think that green skincare product are of superior quality.	Park & Namkung, 2022
			Wallace et al., 2014
			Yoo & Donthu, 2001
Price Perception (PP)	Value for money	PP1 :I will pay a higher price if I perceive a product of higher quality.	
	Affordability	PP2 : I think that Green Skincare products are affordable	Chang, 2009
		PP2: I find important to pay a low price for green skincare products	Hsu et al, 2017
	Expensiveness	PP3 : I think that green skincare is more expensive that conventional skincare.	
Purchase intention (PI)	Likely to buy	PI1 : I am likely to buy green skincare products.	
	Will buy once OOS	PI2 : I will buy green skincare products once I am out of stock.	Hsu et al, 2017
	Will consider buying	PI3 : I will consider buying green skincare products.	