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**Mestrado em Gestão de Informação**

Master Program in Information Management

## **THOUGHTFUL PACKAGING**

How Inner Motivations Can Influence the Purchase Intention for Green Packaged Cosmetics

Joana Rita Dias Baptista

Dissertation proposal presented as a partial requirement for obtaining a master's degree in Information Management with specialization in Marketing Intelligence

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Instituto Superior de Estatística e Gestão de Informação  
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## **DEDICATION**

This thesis is dedicated to the memory of my grandmother, Odete, for her enthusiastic support during all my education but especially for her unconditional love, never-ending encourage and support in life. Because she always understood.

I like to think of her as my guardian angel.

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Finally, I hope that my thesis will benefit the beauty industry, which I am so happy and proud to have been part of for the last few years. My goal was to provide ideas and practical insights that might be used to increase sustainability in this sector and, as a result, contribute to a world that we can be proud to live in.

## **ABSTRACT**

The cosmetics market is developing at a rapid pace, increasing consumers' concerns for sustainability. This sustainability trend raises firms' awareness to refresh their product range with new eco-friendly product lines and invest in sustainable packaging. To this end, this research conducted with 253 cosmetics consumers aims to investigate how the intrinsic behavioral motivators impact customers' buying intentions regarding green packaging. The current study extends the existing literature of social theories already developed and thoroughly examined by paving the way in investigating the association between an individual's characteristics (e.g., self-esteem, self-identity, moral satisfaction, planet ownership, product ownership, purchase intention for eco-packaged cosmetics, and their willingness to pay. In other words, the current study seeks to understand the internal factors of the customer that encourage the purchase of green cosmetics by providing a first conceptual framework that combines these factors. The findings can aid in maximizing the efficacy of packaging in green cosmetics to fulfill customer practical and emotional expectations and encourage environmentally-friendly consumer choices.

## **KEYWORDS**

Eco-Friendly; Eco-Packaging; Sustainable Packaging; Sustainable Consumption; Inner Motivations; Self-Esteem; Self-Identity; Moral Satisfaction; Personal Norms; Environmental Concern; Planet Ownership.

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## LIST OF ACRONYMS

<b>PN</b>	Personal Norms
<b>SI</b>	Self-Identity
<b>SE</b>	Self-Esteem
<b>MS</b>	Moral Satisfaction
<b>PO</b>	Product Ownership
<b>EC</b>	Environmental Concern
<b>PO</b>	Planet Ownership
<b>WTP</b>	Willingness to Pay
<b>CAGR</b>	Compound Annual Growth Rate

# 1. INTRODUCTION

## 1.1. BACKGROUND

The beauty industry is known to be a fast-growing market worldwide (Statista, 2019). Still, in terms of its impact on the environment, the global beauty industry is considered “far from pretty,” being a significant contributor to the environmental waste problem (Sherriff, 2019). Nonetheless, sustainability and consideration for the environment are fundamental components of this industry's urgent need for change. Companies are increasingly developing a need to establish a semiotic relationship between profit and social benefit (Patrick, Peracchio & Townsend, 2019) and are striving to be profitable by doing good (e.g., sustainable consumption and production) (Straughan & Roberts, 1999).

In this previous sense, the “Global Sustainable Packaging Market Report 2021” projected that the market for sustainable packaging is expected to increase at a 5.03 percent CAGR to US\$348.919 billion by 2026, up from US\$247.435 billion in 2019 (Research and Markets, 2021). As witnessed, the present trend of adopting sustainable practices is more than just desirable; it is quickly becoming the new standard, and the cosmetics market is not exempt from exception. In this regard, the cosmetics packaging sector is also attempting to develop more ecologically friendly packaging choices that may propel the cosmetics market to new dimensions and the initiatives to reduce the use of non-biodegradable packaging materials, the expansion of sustainable packaging lines, and green packaging techniques are also driving this market growth (Research and Markets, 2021).

As mentioned earlier, sustainability and consideration for the environment are fundamental components of the cosmetics world, and much of the attention is focused on packaging, which accounts for about 40% of a product's retail price (Sundar, Cao & Machleit, 2020). However, as this sector grew in success, so did its plastic footprint, derived from the fact that almost every package in this industry relies on the overuse of this material, resulting in a huge production of more than 120 billion packaging units per year (Zero Waste, 2018) - clear evidence that packaging is a critical concern when weighing environmental inefficiency, increasing the demand for more environmentally conscious companies' practices within the packaging sector of the cosmetic industry.

Additionally, according to the EPA (2018), consumers do not recycle most recyclable waste. With this understanding, companies face significant pressure and demand from key stakeholders, namely consumers, shareholders, and even environmental regulations, to align their strategies with environmental well-being (Stennis et al., 2018; Rothschild, 1999). In this sense, it is relevant for companies to push for sustainable packaging (Magnier & Schoormans, 2015), making sure to formulate packaging as minimalist as possible, biodegradable, or even creating refillable packaging. Such changes are immediately visible in packaging design variations (Stennis et al., 2018).

With a focus on the developments that are already taking place in this field, it can be noted the reduction of packaging waste, the use of recyclable materials, and the elimination of the use of dangerous chemicals in the products' packaging. In line with this understanding, Unilever recently launched compressed deodorants made with 25% less packaging material than regular ones (Unilever, 2017). Also recently, the beauty retailer Sephora has extended its ethical credentialing with “Clean + Planet Positive,” focusing on no single-use products and “unnecessary” materials, designing for

recyclability, with the aim of 90% of packaging and also packaging requirements for products released from 2021 (Gleason-Allured, 2021).

Critical prerequisites for the success of sustainable packaging alternatives are consumers' likelihood to buy and willingness to pay for these products (Adeyeye et al., 2017; Petersen & Brockhaus, 2017). Accordingly, current ecological developments are difficult to achieve if customers do not opt for environmentally friendly packaged products over standard options.

Consequently, there are some crucial ways to reduce plastic in beauty products: making them more sustainable (ecologically designed) and developing strategies to encourage recycling. Considering this previous knowledge, the current research targets consumer psychology to understand the internal factors that may lead individuals to switch to and purchase environmentally friendly packaged cosmetics and engage in other applications of green consumption. Accordingly, cosmetics users play a significant role in reducing pollution through their purchasing decisions and consistent use of the products. Hekima et al. (2015) suggest that green purchasing or consciously choosing to purchase environmentally friendly products can potentially solve environmental problems caused by unsustainable cosmetic consumption.

As mentioned earlier, the environmental footprint of cosmetic packaging is large, so it is relevant to analyze what factors would positively influence purchase intention. Previous research on this industry has mainly focused on marketing strategies (Kim & Chung, 2011), and various consumer behavior studies have mainly examined individuals' attitudes towards eco-beauty products (e.g., Latit & Sahasakmontri, 1998; Kim & Chung, 2011). Although considerations of the influence of packaging on the formation of consumers' product assumptions and experiences (Orth & Malkewitz, 2008) have been extensively studied, few of these studies have been offered with regard to sustainable packaging. Specifically, our understanding of how intrinsic factors influence consumers' pro-environmental behaviors at the purchase intention stage is limited with respect to product packaging.

Following this perspective, this current thesis delves into the research of why and when individuals perform sustainably. As mentioned earlier, we focus on the context in which sustainability has become increasingly important, specifically the overuse of plastics in cosmetic packaging. Also, this study investigates how purchasing a green packaged cosmetic affects the consumer's inner satisfaction with the associated purchasing experience.

Therefore, the current research tries to approach the research gaps by exploring antecedents of eco-product purchasing behavior and adding new constructs to the existing literature as critical drivers of eco-friendly cosmetic purchasing behavior. To redress these previously mentioned predictions, we adopted consumers' self-esteem, self-identity, personal norms, moral satisfaction, eco-concern, product, and planet ownership as independent variables to study their impact on consumers' purchase intention for eco-packaged cosmetics. Moreover, our study is the first to show an association between all these variables.

## 2. THEORETICAL BACKGROUND

Increasingly, industry and commerce are not only working to optimize packaging in terms of sustainability, focusing on improvements that can reduce materials, raise recycled content, and increase the proportion of renewable substances used in manufacturing, but are also supporting initiatives and projects that enable recovery, recycling, and reuse of packaging (Magnier & Crié, 2015). It is known that there has been an increased interest in eco-friendly packaging as opposed to conventional packaging (Martinho, Pires & Fonseca, 2015). However, while many previous studies have examined the factors that influence this matter, no similar research in the field of consumer behavior has addressed the possible intrinsic/personal motivators that may affect the purchase intention for eco-packaged cosmetics.

By advocating this, the present study outlines a comprehensive pathway of multiple constructs and dimensions that lie behind sustainable purchase intentions to contribute to an increase in sustainable and thoughtful consumption in the beauty sector. Therefore, identifying and evaluating these factors that could influence green consumers' behavior towards sustainable packaging at the product purchase decision stage requires a deep understanding.

Previous research has already strived to uncover various social psychological theories and their relevance and purpose in understanding a consumer's pro-environmental behavior. Out of the most prominent studies in this area, stands out the norm activation model (NAM) – a model that describes altruistic and eco-friendly behavior using anticipated guilt and pride (Schwartz, 1968, 1977); the theory of planned behavior (TPB) – a psychological theory that links beliefs to behavior (Ajzen, 1991); the theory of reasoned action (TRA) – suggests that an individual's conduct is defined by his or her goal to accomplish the behavior (Ajzen & Fishbein, 1980); the value-belief-norm theory (VBN) – as the name suggests, this theory postulates relationships among values, beliefs, norms, and behaviors in a causal relationship (Stern, Dietz, Abel, Guagnano & Kalof, 1999); the model of goal-directed behavior (MGDB) – derived from the basis of the TRA, this model essentially deals with goals instead of behaviors (Perugini & Bagozzi, 2001); and lastly, the model of pro-environmental behavior (PEB) – one of the most recent models related to sustainability, which incorporates both internal and external factors as well as experienced patterns of behavior (Kollmuss & Agyeman, 2002).

The majority of the formerly mentioned studies have used a unique model or theory to comprehend consumers' eco-friendly actions and behaviors. However, these theories and models alone have become insufficient to clarify and explain deliberate behavior towards the environment (Steg et al., 2014). In order to elaborate on this topic, other researchers have created an integrated and broad model, such as the PEB model, to improve upon the previously developed models (Esfandiar et al., 2019). Moreover, it is assumed that the motivational tool that could protect the environment from degradation is human awareness and feelings for nature and the planet. However, environmentally conscious individuals do not inevitably perform ecologically (Peattie, 1995), meaning consumers' assertive attitudes towards green products do not always translate into action. In this sense, it is essential to inspect the inner triggers that can influence consumers' green purchase behavior.

In addition, White, Habib, and Hardisty (2019) developed a comprehensive framework that examines the most effective ways to shift consumer behavior to be more sustainable, proposing that consumers are more inclined to engage in pro-environmental behaviors when the message or context integrates

individual psychological factors. Following the background of this previous study, we expand on earlier work to develop a framework that might contain all the essential aspects previously identified in the literature regarding internal motivations.

With this line of reasoning, we aim to continue the already carried out research regarding consumers' eco-friendly behavior (e.g., Martinho et al., 2015; White, Habib & Hardisty, 2019), as we aim to explore further aspects of consumers' pro-environmental behavior concerning sustainable packaging, including how the relationship between product and packaging may influence consumers' sustainable behavior. Furthermore, we pretend not only to combine previously used constructs of well-known social psychological theories but also to investigate whether psychological ownership encourages individuals to be more altruistic and, as a result, more environmentally friendly, citing recent studies by Jami, Kouchaki, and Gino (2020) and Felix and Almaquer (2019). More specifically, we pretend to answer the question: "What types of internal motivations are triggered by the understanding of ecologically designed cosmetics?"

Based on the previously presented literature, this thesis identifies self-identity, self-esteem, personal norms, moral satisfaction, environmental concern, product, and planet ownership as potential drivers of consumers' willingness to switch to and purchase sustainably packaged beauty products. These constructs will be examined as intrinsic behavioral motivators. This thesis centers on learning the processes and motivations related to consumer response to one particular product, namely, sustainable cosmetics packaging, given the increasing industry-wide push toward more sustainable packaging. For this reason, we pretend to conduct a study regarding sustainable packaging to understand consumers' pro-environmental behavior and the connection between product and packaging in connection to consumers' purchasing behavior (Martinho et al., 2015). In this regard, we define two research questions that can generalize the aim of our study:

- (1) To what extent do cosmetics consumers sense the eco-friendliness of a product's packaging as significant when selecting products? Is the sustainable aspect as important when compared to other product features such as price and convenience?
- (2) Which intrinsic behavioral motivators influence consumers' purchase intention when it comes to green packaging? Do consumers choose environmentally friendly products to meet their inner needs and gain self-benefit?
- (3) How does intent to purchase a green packaged cosmetic affect the consumer's inner satisfaction or enjoyment of the accompanying consuming experience? (Tezer & Bodur, 2020).

In general, this study aims to shed new light on the effectiveness of sustainable packaging and convince more companies of the importance of sustainable activities by finally proposing an effective tool, namely "sustainable packaging." Following that, at the end of this study, it intends to establish a complete psychological framework with fresh proposals and directions for future research regarding this broad field to foster sustainable behavior in cosmetics purchases.

Finally, we seek to generate opportunities for beauty brands to reconstruct their identities and become greener, showing that green is not only the new "glamorous" but also key to defending the well-being of our planet and the individuals who live on it. What is more, the findings should be helpful to companies that produce packaging and even to marketers.

### 3. LITERATURE REVIEW

As already stated, companies have become more and more concerned with the environment. Marketers, whether they want it or not, are becoming caught up in an eco-friendly choice debate that has been impacting the way many products and services are presented to the consumer (Kinnear, Taylor & Ahmed, 1974). This is demonstrated by the numerous initiatives they have undertaken to protect and improve it, allowing the current generation to meet the needs of future generations.

When concerned with packaging sustainability, this concept pertains to the insertion of ecological goals into the life cycle of a product's packaging to increase modifications that can enhance its reuse or recovery (Martinho et al., 2015). Despite significant efforts to change the packaging supply chain, little research on sustainable packaging has been undertaken, particularly when the other party in the equation, the customers, and their behavior, are considered. Besides, as discussed in the introduction, there is a significant gap between consumers' environmental awareness and their consequent behavior in relation to that awareness (Roberts, 1996), referred to as the intention-behavior gap (Auger & Devinney, 2007; Carrington, Neville & Whitwell, 2014).

To properly understand how to narrow this intention-behavior gap, marketing, and social psychology researchers have focused on identifying the factors that motivate green product purchases (e.g., Auger & Devinney, 2007; Griskevicius et al., 2010; Luchs et al., 2010; Peloza et al., 2013; Carrington et al., 2014; Bodur, Duval & Grohmann, 2015).

Prior studies have already investigated consumer motivations for purchasing green products (e.g., Griskevicius et al., 2010; Iyer & Kashyap, 2007; Newman et al., 2014; Bodur et al., 2015) as well as the characteristics of a "standard" green customer (e.g., Shrum, McCarty & Lowrey, 1995; Schlegelmilch, Bohlen & Diamantopoulos, 1996; Straughan & Roberts, 1999). In contrast, current research focuses on the inner motivations and various factors that drive consumers' environmental decisions, as these might help governments and corporations influence these decisions in the long run.

#### 3.1. UNPACKING THE CONCEPT OF SUSTAINABLE CONSUMPTION

As witnessed before, consumer sustainability consciousness plays a vital role in guiding how products should be produced while keeping an ethical viewpoint and product characteristics in mind. Furthermore, businesses must introduce items with long-term qualities that meet their changing requirements to stimulate consumers' intention to buy.

Regarding what was said previously, there are three key elements that customers must consider when selecting whether to buy more sustainably at the point of purchase from any retail point of sale:

- (1) **Sustainable Consciousness:** The current demand for sustainable consumption demonstrates a way expanding to incorporate social and environmental responsibility into product purchase decisions, which explains the rising level of consumer devotion to these current problems, which is being witnessed as having a significant influence on purchase behaviour (Lacey & Kennett-Hensel, 2010).

(2) **Consumer Perceptions of Ecological Features in Products:** Price, product properties, environmental impact, and moral implications are all factors that must be considered. According to Crane (2001), products with moral traits are interpreted as triggering minor environmental damage as consumers feel the entire life cycle and control ecological impacts through biodegradable packaging, among other possibilities.

(3) **Sustainable Brand Attitudes:** Shifts in consumer expectations and new regulations have also given companies more accountability for operating in terms of environmental and social concerns (Lacey & Kennett-Hensel, 2010). In fact, customer product assessments during unethical business activity may result in poor word of mouth or perhaps even protest actions (Grappi et al., 2013). As a result, environmental and social awareness became a matter of market competitiveness that impacted consumer behaviour (Mostafa, 2007).

For instance, when a consumer purchases a sustainably good product such as Sephora cosmetics, he or she will encounter the standard functional attribute claims such as “water-proof makeup,” “natural glow,” “10 hr hydration”, and so on, as well as enhanced attributes such as “climate neutral,” “plastic made from sugar cane waste,” and “biodegradable packaging” that can be offered in the form of additional claims or authentic certifications, as well as brand communication on product labels. Following product analysis, the consumer’s sustainability awareness serves as a filter to differentiate between what is and is not essential to him as an individual. If there is environmental consciousness, the previously mentioned certifications are unlikely to be meaningful and may even be misunderstood, causing uncertainty (Pogutz & Micale, 2011), while the price may become the primary concern for purchasing. On the other hand, if a sustainable-aware consumer comes across a “normal” product with no evident sustainable qualities, he or she may reject it.

Even though the purpose of this thesis is not to judge whether consumers are or are not environmentally conscious, nor whether brands present or do not reveal sustainable attitudes or products with the recommended sustainable attributes. This research aims to discover what resides behind a consumer’s sustainable purchase intention, offering a brand new and integrated view of how consumers’ inner motivations impair their purchasing decisions.

### **3.2. ENVIRONMENTAL CONCERN & KNOWLEDGE**

Nowadays, consumers' environmental concerns and eco-friendly behavior have sparked significant attention and debate (García-de-Frutos et al., 2018). In this sense, academic marketing research has substantially improved understanding of the characteristics and motives of people who prefer to buy and consume environmentally friendly products in order to help protect the environment (Black & Cherrier 2010; Chatzidakis & Lee, 2013).

Consumer worries about the environment increase as consumption behaviour shifts toward environmentally friendly goods and services, and customers modify their purchasing habits to be more environmentally conscious (Kilbourne & Pickett, 2008). In this regard, the market consists of environmentally concerned consumers who buy products beneficial for the environment and conserve energy. They select packaging with care, purchase items made of recyclable materials, and choose biodegradable and recyclable products (Paul & Rana, 2012; Tomasin et al., 2013; do Paço et al., 2019).



Regarding this previous knowledge, creating eco-friendly products is critical to sustaining corporate growth (Hsu et al., 2017).

In terms of characterization, previous studies have stated how eco-friendly goods are beneficial in terms of environmental safety at each step of their product life cycle (Maniatis, 2016), also being more advantageous to the environment and doing less harm than traditional ones (He et al., 2019). However, green product purchases are impacted not just by current environmental challenges and product attributes but also by consumers' moral norms and ideals (Kautish et al., 2019). Also, environmental awareness has been proposed as a plausible determinant of pro-environmental consumption, and many studies have ascertained a link between ecological knowledge and eco-friendly behavior (e.g., Hoch & Deighton, 1989; Chan & Yam, 1995; Mostafa, 2007).

In this line of reasoning, Ottman (1998) shows that when two items are deemed comparable, the sustainability trait can influence which of them is chosen. Van Birgelen et al. (2009) concluded that environmentally friendly consumption and disposal of the product's packaging are related to consumers' degree of environmental awareness and attitude, especially those who favor the attribute "eco-friendly packaging." Also, it is expected that once consumers reach a specific level regarding product performance, they will start to add some features to make the product more social or eco-friendly.

Based on Kinnear, Taylor, and Ahmed's (1974) research, one of this present research's goals is to distinguish purchasers based on how worried they are about the environment. The notion of environmental concern is comprised of two components for this study: (1) the consumer's attitude should exhibit care for the environment; (2) he also must demonstrate purchase intention that is congruent with maintaining the prosperity of the environment. Thus, an individual's level of environmental care is a consequence of both his attitudes and actions.

### **3.3. CONSUMERS AND SUSTAINABLE PACKAGING**

#### **3.3.1. Packaging Role**

Packaging is a defining element of modern and everyday consumption. Consumers often perceive it as a "necessary evil" conspicuously associated with environmental pollution (Lindh, Williams, Olsson, & Wikström, 2016), as its waste is often difficult for individuals to bypass. Notwithstanding the often-negative view of packaging in terms of the environment, it can also serve several crucial roles in consumer demands, enabling buyers to create particular product opinions.

From the marketing point of view, primary packaging plays a significant role in presenting the product's benefits and communicating them. This packaging, essentially referred to as retail packaging, as it is displayed in the retail environment, can exhibit, and communicate certain product benefits (Magnier, Schoormans, & Mugge, 2016; Underwood, 2003), constitute brand impressions and awareness (Orth, Campana, & Malkewitz, 2010; Orth & Malkewitz, 2008), differentiate the product in the marketplace (Orth & Crouch, 2014), and lead consumer categorization processes (Schoormans & Robben, 1997).

### **3.3.2. The Rise of Eco-Friendly Packaging**

Sustainable packaging is identified as packaging that has a reasonable joint environmental effect (Glavič & Lukman, 2007). More concretely, sustainable packaging can be categorized as packaging created from bio-sourced or recycled materials or even recyclable or refillable packaging.

Research on the potential of sustainable packaging is somewhat contradictory. While Roper and Parker (2013) stated that environmental packaging attributes do not influence consumer purchase decisions, other researchers contradictorily stated that such packaging could have practical relevance to consumer choice, assisting consumers' purchase intention and willingness to pay for these goods (Steenis et al., 2017).

Most academic research on consumer judgments of packaging sustainability assumes that sustainable attributes are pleasing and undoubtedly influence consumer responses (Prakash & Pathak, 2017; Steenis et al., 2017). In another perspective, if an individual is environmentally conscious, he will look for approaches to achieve an eco-friendly status, which will make him engaged in products and brands with the appropriate characterization (Smith & Brower, 2012). Regarding this previous knowledge, Silayoi and Speece (2007) still denote that sustainable packaging is considered the essential attribute for the choice of one-third of the population, being a determinant factor when two products are competing (Ottman, 1998).

From this perspective, successful packaging designs rely on consumer considerations regarding the available cues that result from different functional and aesthetical design goals (Bloch, 1995). Furthermore, consumers may distinguish between ways to achieve more salient sustainable packaging designs (Steenis et al., 2017). By way of example, consumers typically respond to whether the packaging is recyclable/recycled, or reusable, or whether it is biodegradable or uses renewable material sources, even if the amount of material is understood to be unnecessary (Lindh et al., 2016; Magnier & Crié, 2015; Nordin & Selke, 2010). In this sense, the colors of the product's packaging, the phrasing of its brand name, and supplementary labels are all often utilized to express the status of green products (Lin & Huang, 2012).

Nonetheless, the few academics who have investigated the subject of environment packaging have noted that this is a topic that has yet to be thoroughly investigated.

### **3.4. PSYCHOLOGICAL OWNERSHIP AND PROSOCIAL BEHAVIOR**

Psychological ownership includes a feeling of property to an object, an entity, or even a belief, resulting in the perception of being sensed as "mine" (Belk, 1988; Pierce, Kostova & Dirks, 2003). Concretely, it appears when specific human necessities, such as the feeling of belonging, self-identity, and efficacy, are satisfied (Pierce et al., 2003; Van Dyne & Pierce, 2004). It is thus designated as a cognitive-affective construct as it indicates an individual's awareness, notions, and assumptions about what he owns (Pierce et al., 2003).

Following this previous notion, psychological ownership ties individuals to their properties and encourages them to determine and exhibit themselves toward their possessions, making these a portion of their individuality (Belk 1988; Pierce et al., 2003; Weiss & Johar 2016). Hence, the more

comprehensive the information and understanding a person has related to the object, the stronger the feeling of ownership will be. Also, the self's investment empowers individuals to see themselves in the possession as they sense their purpose in its existence (Pierce et al., 2003).

The concept of ownership is moderately established in consumer behavior research regarding the individual's extensive self and possession since it manifests significant behavioral effects (Belk, 1998). Moreover, in a consumer setting, psychological ownership is undoubtedly associated with the judgment of the product (Shu & Peck, 2011), buying intentions (Fuchs et al., 2010). In this sense, when an individual's self is intimately connected to an object, it can be translated into a feeling of responsibility to preserve and protect that identity (Brown et al., 2014; Pierce et al., 2003).

In this agreement, studies have demonstrated that the individual orientation of material values contrasts with values that are turned to others (Burroughs & Rindfleisch, 2002) as possessions are intrinsically unrelated to giving and sharing to others (Richins & Dawson, 1992). Also, findings suggest that materialistic consumers are usually less involved in environmental concerns (Kilbourne & Pickett, 2008; Polonsky et al., 2014) and have fewer eco-friendly attitudes than non-materialistic consumers (Hurst et al., 2013). The previously mentioned behaviors may also prevent collaboration between individuals (e.g., Baer & Brown, 2012; Pierce et al., 2003).

Overall, materialism is commonly linked to self-seeking, egoistic, and external stimuli (Shrum et al., 2014). However, evidence has shown that materialists can prove upper levels in defense of the environment, contrary to what was expected (Felix & Almaguer, 2019). In these cases, we foresee that the connection is probably prompted by the desire to enhance self-esteem.

Related to the previous insights, a recent study detected that psychological ownership does not limit prosocial behavior but can enhance individuals' altruism by increasing their self-esteem (Jami, Kouchaki & Gino, 2020). Also, prior research on psychological ownership related to environmental protection and resources has found that this construct reduces disagreements concerning natural resources and develops a cooperative association to improve the environment's sustainability (Matilainen et al., 2017).

Following the previous knowledge and recognizing that consumers can feel ownership of a product even before the actual purchase (Peck et al., 2013), we predict that experiencing this psychological ownership may arouse eco-friendly behaviors even in circumstances in which individuals commonly tend to perform in an unsustainable way. We hypothesize that individuals who feel a greater sense of psychological ownership for the planet and nature will be more compliant in preserving the planet through pro-environmental behaviors such as purchasing sustainably packaged beauty products.

### **3.4.1. Natural-Based Psychological Ownership**

Regarding this previous reasoning and to study consumers' perceptions concerning sustainable packaging, it is necessary to have a clear vision regarding individuals' sense of ownership in the context of natural resources and the environment. This method of increasing our "self" to a more significant entity, sensing the possession of nature, can be described as natural-based psychological ownership (Wang et al., 2019). Regardless, the planet Earth is considered to be owned by all people (Risse, 2009), as no one person can be the legal owner of the entire planet (Felix & Almaguer, 2019). In this context,

it is known that individuals can reveal a consciousness of psychological ownership of it (Felix & Almaguer, 2019).

Following this assumption, and as stated earlier, when psychological ownership has occurred, a feeling of property and responsibility are stimulated for the target (Dawkins et al., 2017). Individuals who manifest a large sense of psychological ownership regarding nature are typically urged to have responsible behavior, protecting, caring, and defending their properties if needed (Potdar et al., 2018). Hence, the growth of an individual's psychological ownership concerning nature encourages the perception that the deterioration of nature is comparable to the loss of the individual's self (Kunchambo et al., 2017); consequently, altruistic behaviors related to environmental protection behave like a personal achievement.

In other words, the formation of psychological ownership established on the emotional association between nature and the individual's self causes the feeling that nature belongs to them or others as a collective (Pierce et al., 2003; Van Dyne & Pierce, 2004). Conclusively, an intense feeling of psychological ownership can encourage individuals to preserve and connect meaningfully to nature and sustainability (Kunchambo et al., 2017). This sense of ownership for the planet is critical for understanding outcome variables, such as the consumer's willingness to embrace green consumerism, in more concrete terms, in relation to beauty products packaged sustainably (Felix & Almaguer, 2019).

### **3.5. POSSESSIONS, IDENTITY AND SELF-ESTEEM**

Consumption behaviors can be influenced significantly by factors related to the individual self (White, Habib & Hardisty, 2019) and, as previously mentioned, psychological ownerships connect individuals to their possessions, causing them to perceive possessions as an integral part of their identity (Belk, 1988; Pierce et al., 2003; Weiss & Johar, 2016). Tuan prior research had already argued that our possessions were part of who we are - "Our fragile sense of self needs support, and this we get by having and possessing things because, to a large degree, we are what we have and possess" (1980, p. 472).

Clearly, possessions aid individuals in the process of constructing, asserting, and revealing their identity, as well as increasing their self-esteem (Allport, 1937; Richins, 2002). As a consequence of an individual's propensity to improve themselves, the "possession-self link" based on ownership subsequently raises the sensed value of the possession (Aggarwal 2004; Aggarwal & Law 2005; Belk 1988; Gawronski, Bodenhausen, & Becker 2007; Kleine III, Kleine, & Kernan 1993). In more concrete terms, people value objects they own more than objects they do not (Beggan 1992; Dommer & Swaminathan 2013; Morewedge et al. 2009; Peck & Shu 2009), developing a "living relationship" with the product or brand by their consequent use and, posteriorly, by connecting themselves with it (Beggan & Brown 1994; Rudmin & Berry 1987). Shu and Peck (2011) discovered that feelings of ownership for an object could lead to positive sentimental attachment.

#### **3.5.1. Self-Esteem**

Individuals with psychological ownership have an intrinsic motivation to establish their self-esteem using what they have (Mead, 1934; Pierce & Peck, 2018). Supporting this previous knowledge, Jackson

(1979) reveals that individuals' self-esteem is unquestionably connected with the physical goods they own, balanced against their requirements.

The demand for self-esteem is one of the primary human motivations, and usually, individuals perform in such ways in order to preserve, support, and improve their self-esteem (Allport, 1937; James, 1890; Leary & Baumeister 2000). Individuals wish to preserve good self-concepts, and consuming can help to confirm that confidence (Dunning, 2007). Some former studies predict that increasing one's self-esteem can positively increase altruistic behavior (Baumeister, 1998; Greenberg, 2008; Leary, 2005; Leary & Baumeister, 2000).

Furthermore, research on environmental behavior suggests that self-esteem may be a favorable predictor of pro-environmental behavior (Arbuthnot 1977; Turaga et al., 2010; Truong & McColl, 2011; Maden & Köker, 2013). In this line of reasoning, individual self-esteem was found to improve the chance of green buying intention (Su, Zhou & Wu, 2020; Cui et al., 2021).

Therefore, we argue that improved self-esteem urges individuals to regulate it, which can be done through prosocial behavior. In this line of reasoning, individuals are more likely to engage in friendly and generous behaviors when they sense psychological ownership, and increased self-esteem reveals this connection.

### **3.5.2. Self-Identity**

Campbell (1990) defines self-identity as the internal arrangement of concepts about the individual; in the same sense, Grubb and Grathwohl (1967) postulate that self-identity is how the individual senses and understands himself. At the cognitive level, self-identity involves self-reflection and self-awareness (Leary & Tangney, 2003).

Self-identity has been considered a notable predictor of behavior in association with sustainable actions (Terry, Hogg, & White, 1999; Van der Werff, Steg, & Keizer, 2014; Chen, 2020). The positive connection between self-identity and consumption has been the target of much consumer behavior research (Grubb & Grathwohl, 1967; Hogg & Michell, 1996). According to Grubb and Grathwohl (1967), people tend to strengthen their self-identity by purchasing products they believe reflect who they are.

Moreover, self-identity is linked to sustainable actions as people's possessions may become manifestations of their identity (Belk, 1988). Furthermore, informing consumers that a particular activity has good sustainability consequences causes them to perceive themselves as more environmentally conscious and more inclined to buy sustainable items (Cornelissen et al., 2008). Lastly, merely reminding customers of a period when their conduct was incongruous with a personal value connected to sustainability might lead to their changing in acting in a way that is compatible with those values (Peloza, White & Shang, 2013).

#### **3.5.2.1. Green Self-Identity**

Due to the growing importance and specificity of the environmental or "green" issues, there is indeed an overwhelming agreement that self-identity takes the form and title of green self-identity (Barbarossa, de Pelsmacker, & Moons, 2017; Chen & Chang, 2012; Khare, 2015; Whitmarsh & O'Neill,

2010). In this regard, in this present thesis, we mainly referred to the measure of self-identity as "green self-identity," which is related to the individual's sense of being concerned with "green issues" and how much they view themselves as environmentalists (Carfora, Caso, Sparks, & Conner, 2017; Sparks & Shepherd, 1992; Lalot et al., 2019; Whitmarsh & O'Neill, 2010).

Self-identity has been found to be a strong predictor of numerous "green" behaviors (Barbarossa & de Pelsmacker, 2016). In this regard, as an example, individuals who perceive themselves as recyclers are more likely to recycle (Mannetti, Pierro, & Livi, 2004). The same may be true for people's intentions to buy eco-products, which have been proven to be influenced by their beliefs of being environmentally conscious (Sparks & Shepherd, 1992).

In addition, green consumer self-identity affects consumer intentions, consistent with earlier research (Bartels & Hoogendam, 2011; Michaelidou & Hassan, 2008; Carfora et al., 2019). More concretely, green self-identity has recently been advocated as a self-centered predictor of purchase intention for the sustainable item and, more broadly, as a driver of eco-friendly actions (Barbarossa, de Pelsmacker, & Moons, 2017; Confente, Scarpi & Russo, 2020).

Based on this previous notion, this present study proposes that a consumer with a more environmentally conscious identity would have a more positive engagement with eco-friendly packaged cosmetics.

### **3.6. GREEN GUILT AND ECOLOGICAL CONSIDERATION**

Consumers frequently evaluate the negative emotional implications of engaging in or refusing to engage in sustainable behaviors (Rees, Klug & Bamberg, 2015). Negative emotions can be activated (Peloza, White & Shang, 2013) in a subtle way as "fear appeals" to emphasize the negative repercussions of a specific action or inaction related to sustainable behavior (Banerjee, Gulas & Iyer, 1995).

Guilt is a disagreeable emotional state connected with action, inaction, or even related to an individual's intention (Baumeister, Stillwell & Heatherton, 1994; Han, Duhachek & Agrawal, 2014). Generally, it is recognized as an emotion sensed in response to infringing on personal norms (Christensen et al., 2004). Hence, individuals feel guilt when they behave undesirably, thus infringing the inner patterns of their excellent understanding of themselves, leading to lower self-esteem (Burnett, 1994; Tracy & Robins, 2004). Typically, due to this negative feeling of guilt, individuals tend to overcome their psychological discomfort (Sharma & Lal, 2020) by correcting and adjusting the behavior (Festinger, 1957). Guilt frequently happens when individuals have some sort of power over the result of a circumstance (Burnett & Lunford, 1994); therefore, it can trigger shifts in an individual's attitude and consequently their behavior through inciting a feeling of responsibility (Bennett, 1998; Keltner & Haidt, 1999).

Even though guilt is recognized as a negative sensation, it also can increase prosocial behaviors (Muralidharan & Sheehan, 2017). Regarding green consumption, guilt and pride were discovered to positively affect perceived consumer effectiveness, leading to a conscious purchase intention (Antonetti & Maklan, 2014). More specifically, guilt was thought to influence long-term intentions and behavior (Onwezen, Antonides, & Bartels, 2013; Muralidharan & Sheehan, 2017). This is partly due to

consumers' taking personal responsibility for unsustainable consequences (Lerner & Keltner, 2000), which leads to individuals feeling ethically responsible for the environment (Kaiser & Shimoda, 1999). In this sense, green guilt has increasingly become a sort of social responsibility guilt as it is pervasive among buyers since several of them sense this feeling for not behaving consciously towards the environment (Chang, 2011).

Prior studies have connected a personal sense of responsibility to guilt (Kaiser & Shimoda, 1999); this feeling of responsibility is recognized to be an imperative element of ecological interest (Kaiser, Ranney, Hartig & Bowler, 1999). Apart from this, guilt is generally used by advertisers in a manner of highlighting the advantages of green consumption, using its moral appeals as a way to bypass the feeling of anticipated guilt (Muralidharan & Sheehan, 2017).

### **3.6.1. Anticipated Guilt**

Guilt can broaden our perception of the impulses for environmentally friendly behavior because it helps people understand their past actions and avoid repeating them in the future (Monteith, 1993). Therefore, individuals who neglect to preserve the environment should experience guilt, and this emotion should motivate eco-friendly efforts (Ferguson & Branscombe, 2010).

The feeling of guilt is considered to be a powerful motivator of preventative behaviors (Elgaaied, 2012) as its presentiment can shape consumers' behavior or even their behavior intention (e.g., Massi Lindsey, 2005); more specifically, the "anticipated guilt" was found to motivate individuals to act in a pro-environmental way (Grob, 1995; Kaiser, 2006; Steenhaut & Kenhove 2006). In this sense, Huhmann and Brotherton (1997) referred to anticipatory guilt as the forecast of an individual's feelings when considering dishonoring their inner patterns. This anticipation grants an opening to avoid the unpleasant sensation associated with their misbehavior, allowing their behavior to be managed by their anticipatory affectional sense (Steenhaut & Van Kenhove, 2006).

From this previous perspective, we assume Perugini and Bagozzi's (2004) prediction that if the first emotional response individuals encounter when experiencing environmental deterioration is adverse (i.e., guilt); consequently, eco-friendly answers may be induced to decrease the pre-sensed negative emotion. In view of this, on the next occasion of choice, an individual might sense anticipatory guilt, which emerges as a defense mechanism in order to limit their direction.

## **3.7. MORALITY IMPACT**

### **3.7.1. Moral Satisfaction**

Pro-environmental behavior is typically engaged when individuals derive hedonic pleasure or a positive feeling from their actions (Corral-Verdugo et al., 2009). In this regard, consumers may acquire products with environmental attributes to obtain moral satisfaction or a sense of a "warm glow" (Giebelhausen et al., 2016). In other words, they do so to fulfill their ethical goals and even to signal their devotion to morally defensible causes (Andreoni, 1990; Irwin & Spira, 1997; Kahneman & Knetsch, 1992). In this regard, consumers may acquire products with environmental attributes to obtain moral satisfaction or

a sense of a "warm glow" (Giebelhausen et al., 2016). In other words, they do so to fulfill their ethical goals and even to signal their devotion to morally defensible causes (Andreoni, 1990; Irwin & Spira, 1997; Kahneman & Knetsch, 1992).

Consumers' perceptions of product sustainability have been found to contribute to their moral satisfaction and willingness to purchase these products (Stennis et al., 2018). Moreover, the feeling of an inner "warm glow" (Andreoni, 1990) was supported as the same study found that consumers have more significant purchase intentions towards various sustainable designs when elicited by their perceptions of moral satisfaction. Compared to conventional packaging, any change in packaging design that conveys environmental friendliness was found to increase consumer purchase intention (Stennis et al., 2018). Also, Tezer and Bodur (2020) recently added to the preceding reasoning by stating that "using a green product improves satisfaction of the associated consumption experience," referring to this impact as the "green consumption effect." The green consumption effect was proven in their study to be driven by a warm glow, which is the sensation one gets after engaging in prosocial behavior (Andreoni 1989, 1990). As green goods have intrinsic prosocial properties, simply the act of purchasing or using them implies doing a grand gesture, leading to warm glow sensations (Tezer & Bodur, 2020).

Considering the foregoing, we believe that the simple intent to purchase a green packaged cosmetic, which is a proenvironmental action, will result in a warm glow and, consequently, moral satisfaction. Supporting this notion that utilizing green products is important for a consumer's moral satisfaction and, as a result, leads to increased buying intentions.

### **3.7.2. Personal Norms**

Personal norms are associated with self-concept and are felt as responses of moral commitment to make a particular behavior (Schwartz, 1973). They are known to be a significant individual distinction, as they work as views about a sense of personal duty that are connected to one's self-standards (Jansson, Marell & Nordlund, 2010).

Recycling (Guagnano, Stern & Dietz, 1995; Valle et al., 2005) choosing sustainable food (Wiidegren, 1998), and being eager to pay a higher price for sustainable options (Guagnano, Dietz & Stern, 1994; Stern, Dietz & Kalof, 1993), are all behaviors that are anticipated by personal norms regarding sustainability. In this line of reasoning, marketers can succeed by focusing on people who have strong personal norms and attitudes about the environment, or even by priming people who already have strong personal standards (Pelozo, White & Shang, 2013; Verplanken & Holland, 2002).

As a result, when consumers have a stronger personal norm that encourages specific behaviors, they should be motivated to comply with these norms and act appropriately (Schuler & Cording, 2006; Hofenk et al., 2019; Roos & Hahn, 2019), impacting on pro-environmental behavioral intentions (Balundé et al., 2019; Ruerpert et al., 2016; van der Werff & Steg, 2016). Moreover, it has been demonstrated that the agreement with personal norms is linked with sensations of pride, whereas the nonagreement with the personal norms relates to the emotions of guilt (Onwezen et al., 2013). This previous knowledge suggests that people with strong personal norms acquire environmentally friendly packaged cosmetics because they feel morally obligated. Considering this reasoning, we put in test



personal norms in our study as an intrinsic motivation as we believe that individuals connect with these products because they consider it is correct to do so.

### **3.8. PURCHASE INTENTION**

So that it can be defined purchase intentions properly, it can be stated that: "Purchase intentions are an individual's conscious plan to make an effort to purchase a brand" (Spears & Singh, 2004), and it can also be described as "the person's motivation in the sense of his or her conscious plan to exert effort to carry out a behavior" (Eagly & Chaiken 1993). In other words, the purchase intention might be a reaction to the purchase intention right away or a preparation that leads to behavior in the future. Because the great majority of purchases are made at the moment of sale, purchase behavior usually follows immediately after purchase intent. As a result, the intention of buying is believed to be a good proxy for purchase behavior in this study.

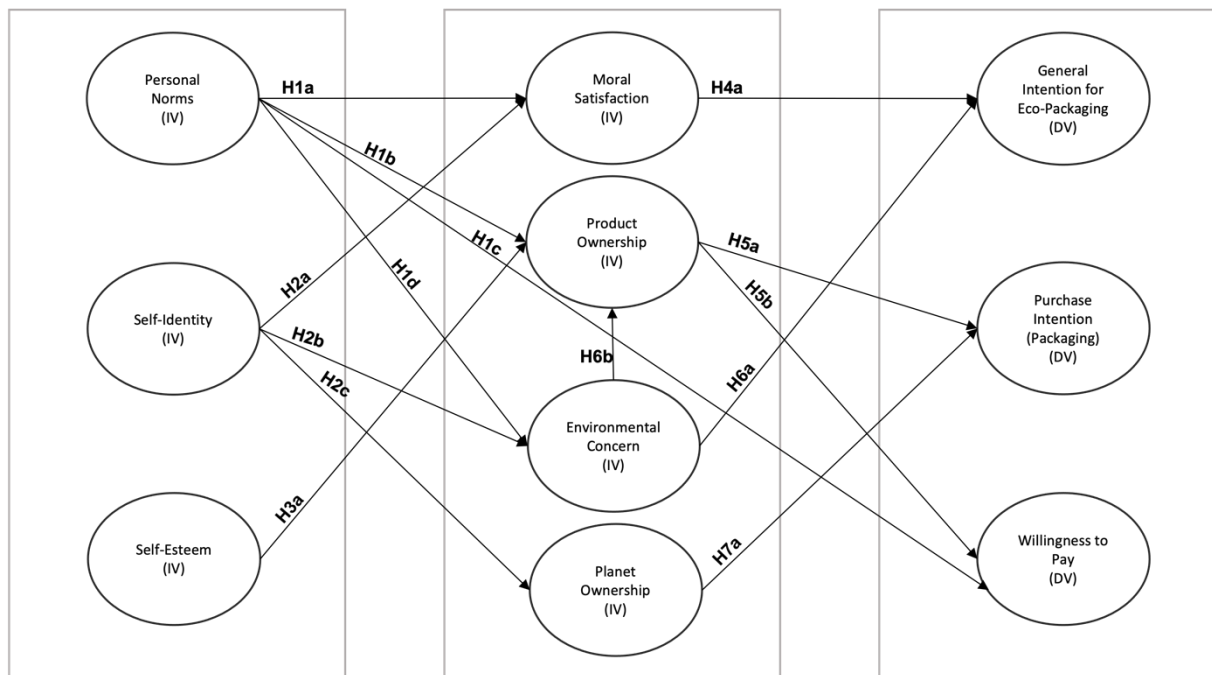
However, there is a distinction to be made between intention and behavior. Intention and behavior can occasionally clash, especially when it comes to social and moral issues. This is because people's self-ideals or the ideals they believe are socially acceptable frequently diverge from their real self-concept (Hawkins et al., 1998). As a result, when people express a desire to buy, they are more likely to reveal their ideal self-concept rather than their real self-concept.

#### **3.8.1. The Interplay of Packaging and Green Purchase Intention**

The construct of "Green Customer Purchase Intention" was revealed to explain consumers' association with the environment, implying green purchase intention. D'Souza et al. (2006) noticed that elements such as helpful information on product descriptions would positively impact green behavior. Furthermore, consumers' former experiences regarding environmental products might have a crucial impact in establishing the products' particular opinion on future purchase intention; on the other hand, this same researcher also observed that consumers would be willing to purchase "greener" products even though they possessed lower quality (D'Souza et al., 2006).

Green willingness to purchase is crucial for measuring customers' present and further purchase decisions on green or eco-friendly products and estimating consumers' green demand for these products. Mostafa (2009) showed that environmental matters positively affected consumers' green willingness. To the greatest extent, extensive consumer research acknowledges that consumers mostly rely their attention on packaging sustainability since it contributes to boosting consumers' purchase probability and willingness to pay for more pro-environmental products (Steenis et al., 2017).

## 4. CONCEPTUAL FRAMEWORK



**Figure 1** - Conceptual Framework.

### 4.1. HYPOTHESES DEVELOPMENT

Following the comprehensive study of our thematic, the following chapter reports the hypotheses' development. This is a well-informed interpretation of what has already been investigated to test such assertions. To do this, and in response to the previous literature review concepts, the conceptual framework (Figure 1) is proposed for the in-depth exploration of these topics, which were first investigated individually to set connections afterward.

In terms of cosmetics purchases, most consumers select their cosmetics at random without recognizing or comprehending the detrimental consequences of their usage (Krishnan et al., 2017). However, consumers are increasingly paying attention to safe cosmetics (e.g., natural ingredients, eco-friendly packaging, and ethics) important for environmental and social responsibility (Yang, 2017). As a result, it is essential to examine the elements that may influence customers' green purchasing behavior in the cosmetics sector since these "green" items allow for the reduction of negative environmental effects (Leonidou et al., 2013).

Hence, we attempt to understand the impact of the self on acquiring eco-packaged cosmetics and assess if this behaviorism can be associated with consumers' inner motivations, thus disentangling the proper eco-friendly drivers. We also aim to show that intrinsic motives have distinct implications for

general purchase intention (statements) and the buying intention of a product that was previously exhibited and offered to the consumer (photograph).

To the best of our knowledge, research on this topic is limited, especially when related to eco-packaging and the independent variables selected for the study. Thus, as previously stated, the framework given here offers the foundation for a variety of hypotheses and recommends paths for empirical investigation.

#### **4.1.1. Personal Norms as Independent Variable**

Whenever social norms are assimilated into a coherent personal value system, a new personal norm is created (Jansson, 2011). It is characterized as a strong moral imperative to participate in altruistic or environmentally friendly action (Moser, 2015; Schwartz, 1977). This type of norm reflects an individual's moral ideals (Onwezen et al., 2013).

As previously stated, personal norms and behavior are favorably connected with green product purchases (Jansson, 2011). In a recent study, Prakash and Pathak (2017) considered personal norms the most potent predictor of purchase intention for eco-friendly packaged items. The findings indicated that individuals have solid ethical motivations and high moral values in support of environmental conservation. In this regard, personal norms were found to associate purchasing intention significantly, implying that eco-friendly purchases have societal effects and personal ones. Additionally, the same research also showed that customers want personal fulfillment and a moral obligation toward the environment, impacting their purchasing decisions.

Having stated that, we will follow that path and argue that a person with a specific personal profile is more likely to be worried about the environment and act on its behalf. In other words, we believe that strong personal norms influence consumer purchase patterns and encourage environmentally beneficial behavior. As a result, we employ personal norms to assess internal environmental responsibility regarding cosmetics with ecological packaging, studying its connection with various constructs such as Moral Satisfaction, Psychological Product Ownership, Willingness to Pay, and Environment Concern.

#### **Personal Norms and Moral Satisfaction**

Personal norms are, as we know, associated with the self-concept and perceived as emotions of moral responsibility to engage in certain behaviors (Schwartz, 1973; Kaiser, 2006). Moreover, these norms are linked to the conviction that some behaviors are intrinsically good or bad, regardless of their personal or social repercussions (Manstead, 1999). Moreover, according to the Norm Activation Model, personal norms are an individual's feelings of self-ethical duty to do an activity (Schwartz, 1973).

Conformity with personal standards relates to pride, whereas disagreement is associated with feelings of guilt (Onwezen et al., 2013). As a result, we adopt personal norms to assess the individual's moral satisfaction since it is expected that individuals feel morally fulfilled if they have ethically followed their norms. Consumers try to satisfy their desires while also fulfilling their responsibility to the

environment, influencing their purchasing decisions (Hojnik, Ruzzier, & Ruzzier, 2019). People can achieve intrinsic satisfaction by purchasing eco-friendly products that align with their core values and refraining from acquiring conventional products that can have a negative effect on the environment and other individuals (Ahn, Kim & Kim, 2020).

As a result, this present study claims that people with higher environmental, personal norms are more likely to avoid ordinary or conventional things in favor of more eco-friendly ones, such as cosmetics with green packaging. When buyers pick eco-friendly goods over conventional ones, they may be pleased not only with the purchase itself but also with the knowledge that it will benefit others (Sheth et al., 2011; Bly et al., 2015). Therefore, we assume that the higher individuals' personal norms are, the better their moral satisfaction will be.

According to the above analysis, the following hypothesis is proposed:

***H1a. PN has a positive direct association with Moral Satisfaction.***

Because no research with this direct relationship between variables has been uncovered, the link between these two constructs will be a significant academic addition.

### **Personal Norms and Product Psychological Ownership**

Psychological ownership, as we know, represents an individual's consciousness, ideas, and beliefs about the object of ownership (Pierce, Kostova & Dirks, 2003). In addition, the object is perceived as having a tight relationship with the self (Furby, 1978; Wilpert, 1991) and as being a part of the "extended self" (Belk, 1988; Dittmar, 1992).

Under these circumstances, we argue that personal norms affect an individual's sense of ownership, as this emotion results in a personal and intrinsic view of responsibility (Pierce, Kostova & Dirks, 2003). Furthermore, we anticipate that people with high environmental, personal standards will feel more linked to the eco-packaging displayed and, as a result, will have a sense of psychological ownership over the product, resulting in the "mine" effect (Pierce et al., 2003).

Hence, we propose:

***H1b. PN has a positive direct association with Product Psychological Ownership.***

### **Personal Norms and Willingness to Pay**

As we know, the cost element has a significant impact on customer purchasing decisions for green products (Osterhus, 1997). Previous research has found a relationship between personal norms and expressed willingness to pay for green items, like organic food (e.g., Spash et al., 2009; Bishop & Barber, 2015). Following this reasoning, it is, imperative to assess the impact of personal norms on a consumer's WTP for cosmetics with sustainable packaging. From this rationale, we believe that personal norms will be a strong motive for consumers to spend extra on eco-packaged items.

In light of the above stated, this present study follows the hypotheses that:

*H1c. PN has a positive direct association with Willingness to Pay for green packaged cosmetics.*

### **Personal Norms and Environmental Concern**

According to the norm activation model, a feeling of responsibility is an individual's moral character and psychological condition for altruistic conduct under the constraints of personal norms. Personal norms are thus a type of self-expectation that represents an individual's sense of responsibility for carrying out specific behaviors (Schwartz, 1977). From the perspective of environmental concern, it is widely seen to be a direct precursor of green consumption intention, which relates to an individual's level of concern for nature and the environment (Roberts & Bacon, 1997; White & Simpson, 2013; McDonald et al., 2015).

According to this logic, we believe that personal norms will be a powerful driving force that pushes individuals to care about the environment and therefore engage in proenvironmental behavior (Rodrigues & Domingos, 2008; White & Simpson, 2013). Based on the previous discussion it can be hypothesized that:

*H1d. PN has a positive direct association with Environmental Concern.*

### **4.1.2. Self-Identity as Independent Variable**

In this present research, we used self-identity related to the concept of environmental self-identity, namely, the degree to which individuals view themselves as the sort of person who behaves in an ecologically responsible manner. We argue that ecological self-identity is especially important for understanding pro-environmental behaviors since it more directly reflects pro-environmental actions rather than just the significance of the environment as such for the self. Those who have a solid environmental identity see themselves as the sort of people who will act ecologically friendly and hence are more inclined to act pro-environmental (Van der Werff et al., 2013).

Because eco-packaged cosmetics purchase requires deliberate decision-making, the individual must be aware of and agree with the pattern of behavior. As such, this type of conscious consumption also needs to be compatible with an individual's identity. By including self-identity as a variable in the study, we intended to understand its general impact on pro-environmental behaviors better, but mainly to advance its connection to particular and less studied constructs (e.g., planet ownership).

### **Self-Identity and Moral Satisfaction**

As we know, according to research, engaging in environmentally responsible activities can impact how individuals perceive themselves. Acting ecologically friendly can contribute to an environmental self-identity (Cornelissen et al., 2008; Van der Werff et al., 2013) since individuals who act pro-environmental view themselves as more eco-friendly.

In this reasoning, if environmentally friendly activities are seen to be an expression of morality, as we reasoned above, they may also generate an overall good self-identity. Indeed, ecologically responsible conduct has led to individuals' seeing themselves in a more positive light in general (Taufik et al., 2015). Furthermore, how positively individuals see themselves is a significant predictor of their feelings (Taylor & Brown, 1988; Baumeister, 1993). In this sense, we believe that having an environmental self-identity may make individuals feel good by triggering happy feelings because it communicates something significant about who they are, thus increasing their moral satisfaction (Taufik et al., 2015).

In sum, higher levels of environmental self-identity affect behavior by triggering personal norms and a sense of moral duty to act in a manner compatible with that self-identity (Van Der Werff, Steg, Keizer, 2013). Also, engaging in environmentally responsible activities might make people feel good, happier, and have a greater level of life satisfaction (Brown & Kasser, 2005; Xiao & Li, 2011). Therefore, we expect that:

***H2a: SI has a positive direct association with Moral Satisfaction.***

### **Self-Identity and Environment Concern**

It's been stated that one's identity has far-reaching implications for the environment (Lou & Li, 2021). According to Hormuth (1999), acts have representational purposes and meanings for an individual, and acquiring particular deeds may be done to gain a certain status, impact others, or even develop an identity for oneself. Individuals behave in ways that are consistent with their self-identity (Zeiske et al., 2021) because they are driven to do so because it seems necessary and valuable (Molinario et al., 2019) and because not doing so can cause a feeling of guilt (Stets & Carter, 2012). Hence, environmental concerns become selfish rather than altruistic for those who have a strong ecological identity.

Also, Manetti et al. (2014) provide evidence that, for example, an individual's personal identity as an ecologically concerned person adds substantially to the explanation of recycling intents. As a result, self-identity is positively related to environmental behavior and environmental concern (Lyon, Bidwell, & Pollnac, 2018). Schultz (2000) even claimed that environmental concern was a result of incorporating nature into the self. In this accordance, Khallouli and Gharbi (2013) also noted that a person's conviction in his or her capacity to do certain behaviors is formed through self-expression, which leads to the formation of a specific self-identity.

Following the previous line of reasoning, we believe that individuals with environmentally solid self-identity regarding the environment will have a more profound ecological concern. For this purpose, we use Lee's (2009) self-identity scale, which precisely measures the degree to which individual views himself as ecologically conscious, evaluating the person's feelings of pride, meaningfulness, and responsibility when an act ecologically (e.g., I feel proud of being a green person).

Consequently, the gathered data suggests hypothesis testing, forecasting:

***H2b. SI has a positive direct association with Environmental Concern.***

### **Self-Identity and Planet Ownership**

Based on the previous conceptualization, and being the first research to make this connection, we predicted that consumers with higher environmental self-identity will increase their tendency to think of themselves in terms of planet owners (by activating planet-ownership related thoughts – "This is my planet"). The tendency to think of themselves in terms of identities that own (or rely on) the planet/environment can be based on particular identities that reflect environmental self-identity.

One more time, Lee's (2009) three-item scale was used to assess environmental protection self-identity, this time relatively with the sense of ownership towards the planet. Lee (2009) argued that individuals often develop a distinct self-identity representing independence in this context. Thus, these individuals may find a self-identity of being moral, ideologically motivated, and ecologically responsible person particularly alluring.

The previous viewpoint supports our above hypothesis that an individual with a solid environmental self-identity retains a sense of ownership and responsibility for the planet and environment. As a result, they have a broader sense of self. That is, they identify more strongly with the natural environment.

Thus, the information aggregated implies hypothesis testing (Figure 1), predicting:

*H2c. SI has a positive direct association with Planet Ownership.*

### **4.1.3. Self-Esteem as Independent Variable**

#### **Self-Esteem and Product Psychological Ownership**

According to Jami, Kouchaki, and Gino's (2020) recent study, activating psychological ownership promotes self-esteem and prosocial conduct. However, the opposite causal relationship, on the other hand, was not examined.

People with higher self-esteem are thought to be more confident and capable of making decisions (Brown & Dutton, 1995). Individuals with higher self-esteem are more willing to self-enhance and thus make more risky choices (Brockner, Wiesenfeld & Raskas, 1993), as the need for self-esteem is a fundamental human drive, and people frequently act in ways to defend, maintain, and develop their self-esteem (Leary & Baumeister, 2000). Moreover, ownership feelings are claimed to be accompanied by a sense of effectiveness and competence (White, 1959).

Following the previous logic, we believe that individuals with higher self-esteem are more willing to psychologically own a product because they seek intrinsic targets, whereas individuals with lower self-esteem may require physical product possession of certain products to enhance and improve their self-esteem in the eyes of themselves and others, making them more likely to seek materialistic targets (Kasser & Ryan, 1993; Weiss & Johar, 2013). In this instance, possessions play a vital part in the formation and communication of a person's identity; as a result, they have a favorable impact on self-esteem (Richins, 2002).

In order to study this previously stated assumption, we used state self-esteem since this type of self-esteem relates to how one assesses oneself in the present time (e.g., "Right now, I am comfortable with myself"). State self-esteem can vary around its characteristic level due to an individual's present conditions, and these changes are significantly connected to a person's cognition, motivation, and action (Crocker & Wolfe, 2001).

Given our interest, we pretend to disentangle the link between self-esteem and psychological product ownership, which may be an intriguing theoretical avenue to pursue. We predict that individuals who experience higher self-esteem should be more driven to preserve their present, positive self-esteem (Jami, Kouchaki & Gino, 2020). If so, we believe that those who have higher self-esteem are more likely to sense psychological ownership. Following this previous reasoning, we shed light on this connection by stating that when the cosmetic with ecological packaging is displayed, people with higher self-esteem will experience more of the hypothesized impact of psychological ownership. In sum, we expect:

***H3a.** SE has a positive direct association with Product Ownership.*

## **4.2. THE INFLUENCE OF THE PRE-INVESTIGATED IVS IN THE PROPOSED DVs**

In a different light, but also the same context, the present research investigates the effect the previously examined independent factors have on the dependent variables presented in this study. To do this again, we individually try to anticipate the possible hypotheses of these correlations, which will subsequently be described in more detail in our study findings.

### **Effect of Moral Satisfaction and General Intention for Eco-Packaging**

As opposed to utilizing a regular product, many ecologically friendly products come with a consuming experience. The *green consumption effect*, as defined by Tezer and Bodur (2020), is driven by a "warm glow," which is defined as feeling good about oneself after engaging in prosocial actions (Andreoni 1989, 1990). In other words, green consumerism has more significant social and moral values than traditional consumption (Mazar & Zhong, 2010). In this sense, consumers sometimes purchase items with environmental qualities to obtain moral satisfaction or a "warm glow" to satisfy their moral aims and indicate their engagement with ethically justifiable causes (Andreoni, 1990; Irwin & Spira, 1997; Kahneman & Knetsch, 1992). Also, more recent research (Giebelhausen et al., 2016; Taufik, Bolderdijk & Steg, 2015) showed that environmental attitudes lead to pleasant glow sensations.

Although previous research on green products has looked at the factors that influence green product purchase (Griskevicius, Tybur, & Van den Bergh, 2010; Luchs et al. 2010; Newman, Gorlin, & Dhar 2014; Pelozo, White, & Shang, 2013), there has been little research on how the need for moral satisfaction affects consumer behavior during the consumption stage.

Following this knowledge, we adapted the scale from (Stennis et al., 2018) following our topic, measuring the individual's moral satisfaction within three items (e.g., would make me feel like a better person). In agreement with the preceding logic, we anticipate that customers with higher perceived



moral satisfaction would be more inclined to purchase eco-packaging items as they know they will feel better about themselves – sense the "warm glow" feeling - if they make this kind of purchase.

Within that perspective, we hypothesize that:

***H4a. MS has a direct association with General Intention for Eco-Packaging.***

#### **Effect of Product Ownership (PO) on Purchase Intention and Willingness to Pay for Eco-Packaging**

Several studies have shown that ownership is related to intimacy, satisfaction, and a greater appreciation for the product (e.g., Kirmani, Sood, & Bridges, 1999; Peck & Shu, 2009). Further, due to its ability to anticipate positive customer results for marketers, such as willingness to pay more for goods (Fuchs, Prandelli, & Schreier, 2010; Shu & Peck, 2011), word of mouth (Kirk, McSherry, & Swain, 2015), and purchase intention (Kirk, McSherry, & Swain, 2015), psychological, or perceived (Peck & Shu, 2009), ownership has received considerable growing interest in the marketing literature (Spears & Yazdanparast, 2014).

In this regard, we believe that by presenting the cosmetic in eco-friendly packaging, customers will have a higher feeling of ownership for the product and will want to purchase it. Furthermore, we believe that after viewing the eco-attributes of the demonstrated cosmetic (sustainability is a central part of the design), individuals will be more willing not only to purchase it but also to spend more on it since they have created a stronger connection with it. Finally, we believe that displaying a photo of the object itself improves the product's sense of ownership. In this way, the anticipated information about this construct is expanded as it is already known that when consumers touch a product, they develop feelings of psychological ownership for this item (Peck & Shu, 2009), attributed to the impact of touch on feelings of control (Peck et al., 2013).

Relying on these literature findings, we propose the following supposition:

***H5a. PO has a positive direct association with Purchase Intention for Eco-Packaging.***

***H5b. PO has a positive direct association with Willingness to Pay for green packaged cosmetics.***

#### **Effect of Environment Concern (EC) on Product Ownership and General Intention for Eco-Packaging**

Several studies have found that environmental concern reflects altruistic ideals. According to Heberlein (1972), Altruistic motives or values are critical in determining consumer behavior toward the environment. Consumers are becoming more environmentally concerned due to their altruistic ideals, as seen by their attempts to alleviate environmental problems through green shopping (Magnier & Schoormans, 2015; Birch et al., 2018; Zou & Chan, 2019). Consumers' ecological concern promotes pro-environmental purchasing behavior, according to Pickett-Baker and Ozaki (2008). However, trust in eco-friendly products and a desire to safeguard the environment increased knowledge of eco-brands and intent to purchase them (Koenig-Lewis et al., 2014). Their engagement in environmental conservation mirrored their environmental concerns (Kilbourne & Pickett, 2008). These individuals

were more inclined to purchase environmentally friendly packaged goods since it demonstrated their dedication to the environment (Magnier & Schoormans, 2015; Martinho, Pires & Fonseca, 2015).

As a result, environmental concerns might be viewed as a crucial aspect in developing eco-friendly packaged goods. Furthermore, consumer awareness of packaging materials of commonly used items, such as cosmetics, and their environmental effects grow (Koenig-Lewis et al., 2014; Magnier & Schoormans, 2015). As a result, we believe that consumers' environmental concerns are a significant factor in their decision to acquire an eco-friendly package.

As a result, this research proposes that:

***H6a.** EC has a positive direct association with General Intention for Eco-Packaging.*

***H6b.** EC has a positive direct association with Product Ownership.*

### **Effect of Planet Ownership on the Purchase Intention for Eco-Packaged Cosmetic**

Individuals who have a strong psychological attachment to nature are often encouraged to act responsibly, safeguarding, caring for, and defending their possessions if necessary (Potdar et al., 2018). Furthermore, in agreement with the previous knowledge, a recent study by Felix and Almaguer (2019) found that the notion of psychological ownership of the planet boosts the desire to buy green items as well as the desire to recycle.

In this regard, we argue that as a consumer's psychological feeling of planet ownership develops, so does their motivation to safeguard the world through eco-friendly actions, such as the desire to acquire a product with eco-friendly features (e.g., eco-packaging) when this one is displayed.

Based on these findings from the literature, we propose the following hypothesis:

***H7a.** PO has a positive direct association with General Intention for Eco-Packaging.*

Our research will contribute to previous research on environmentally friendly consumption as well as psychological ownership by providing preliminary evidence that psychological ownership for a product and for the planet ("this is my planet") is influenced by different individuals' values and motivations, resulting in different outcomes. In this sense, we used Felix & Almaguer (2019) scale, precisely the one regarding "Psychological ownership for *my* planet," as the items of this scale fit better in our study terms and constructs.

Moreover, the choice of "*my* planet" scale instead of "*our* planet" comes from the fact that we want to examine not only the link between the other constructs in the study but also draw a comparison to the construct "Product Ownership."

## **5. METHODOLOGY**

### **5.1. CHOICE OF METHODOLOGY**

The study's methodology will rely on secondary and primary data gathering to measure the aforementioned components. This covers a quantitative method since the significant purpose of this master dissertation research is to determine if there is a positive cause-effect link between the identified variables and consequently answer all of the research questions.

### **5.2. RESEARCH APPROACH**

Existing literature and prior studies on sustainable packaging communication served as a foundation and prepared the way for the proposed theoretical framework. This procedure ensures that the most significant elements that are thought to influence a consumer's purchasing behavior are recognized. The study was structured and organized, with hypotheses and problem statements established to provide a clear picture of the information that needed to be collected. Concepts had to be operationalized to guarantee that they were turned into unambiguous researchable objects to evaluate and test the previously generated hypothesis and assertions (Saunders, Lewis & Thornhill, 2012). Following that, data was gathered and examined to see any correlations between the independent variables and purchase intent.

More specifically, for this master's dissertation research, a conclusive, deductive approach was chosen to provide generalizable conclusions on whether customers' inner motivations could influence and motivate the purchase intention of eco-packaged cosmetics and how this would affect the customer's sensations during this process. In this sense, a deductive investigation begins with deriving a hypothesis from an existing theory and then converting the theory into practical terms that can be investigated and consequently confirmed or rejected (Saunders, Lewis & Thornhill, 2012).

### **5.3. RESEARCH DESIGN**

Since this research aims to understand a cause-effect relationship, a conclusive, explanatory/causal equation modeling research design was conducted since this master's thesis takes a positivist and logical approach. Moreover, explanatory research, also known as causal research, aims to determine the logic behind a link between variables and, as such, to explain the presence of a particular phenomenon under investigation and demonstrate a cause-and-effect association between the variables. In other words, the goal of this technique is to determine how these variables interact, which is the dissertation's last stage (Saunders et al., 2012).

Existing literature and prior studies on sustainable packaging served as a springboard and prepared the way for the proposed theoretical framework. This procedure guarantees that the essential aspects that are thought to influence a consumer's purchasing behavior are identified. The study was defined, with hypotheses and problem statements developed to provide a clear picture of the data that needed to be collected. Concepts had to be operationalized to guarantee that they were translated into specific researchable objects in order to evaluate the resultant hypotheses and claims (Saunders et al., 2012). Following that, data was gathered and assessed to see whether there were any correlations between the independent variables and purchase intent.

## 5.4. DATA SOURCES

### 5.4.1. Secondary Research

The secondary research was based on a comprehensive variety of mainly academic articles of mostly scholarly articles from top marketing and management journals as defined by the Association of Business Schools (ABS) and listed in the Academic Journal Guide (AJG), using keywords like “Sustainable Products,” “Sustainable Consumption,” “Inner Motivations,” “Eco-Friendly Products,” “Green Cosmetics,” “Sustainable Purchasing” and “Eco-Packaged Cosmetics.” Conducting a literature review in these terms allowed one to grasp the facts and subjects under investigation better, as it also clarified what more research would be needed to close the already known research gap with respect to green packaged product purchasing based on the factors identified.

Secondary research is an essential tool because it may help us bridge the gap between what we already know and what we need to learn to solve a problem (Baker, 2000). As a result of the absence of relevant research studies that address the identified research gap, it was possible to identify the exploratory nature of the research and therefore shape the direction of the primary research technique chosen, which is outlined at more length below.

#### 5.4.1.1. Selection of Variables in Research

Following the previous knowledge and after extensive reading of numerous academic publications connected to the subject, the following variables were chosen to react to the theme of the study in question since they were considered more suited to the goal of causal analysis. The table below, derived and adapted from Wijekoon and Sabri’s (2021) research, summarizes and categorizes the selected variables, dividing them into *Individual Factors*, *Product Related Factors*, and *Demographic Factors*, meeting in this manner our peer-decided criteria.

Therefore, the variables selected are intended to understand consumers’ purchase intention of green packaged beauty products to achieve and answer the particular research aim, “*What are the factors affecting customers’ purchase intention of green packaged beauty products?*”.

MAJOR FACTOR	SUBFACTOR	SUBFACTOR (LEVEL 2)
<p><b>Individual Factors</b></p> <p>(This category includes elements that are specifically related to a single decision maker. These elements are mostly the result of an individual’s personal experiences, and consequently, they have an impact on an individual’s judgment and decision-making process.)</p> <p><i>(Independent Variables – IV)</i></p>	<p>1. Perceived Factors</p> <p>2. Values and Personal Norms</p>	<p>1.1. Planet Ownership</p> <p>1.2. Product Ownership</p> <p>2.1. Personal Norms</p> <p>2.2. Self-Identity</p> <p>2.3. Self-Esteem</p> <p>2.4. Environment Concern</p> <p>2.5. Moral Satisfaction</p>

<p><b>Product Related Factors</b> <i>(Dependent Variables – DV)</i></p>	<p>3.1. Intention for Eco-Packaging 3.2. General Intention for Eco-Packaging 3.3. Willingness to Pay</p>	<p>-</p>
<p><b>Demographic Factors</b> <i>(Control Variables)</i></p>	<p>4.1. Gender 4.2. Age 4.3. Annual Income 4.4. Education</p>	<p>-</p>

**Table 1 - Variables Selected.** Source: *Adaped from Wijekoon and Sabri (2021)*

### 5.4.2. Primary Research

Since secondary data, primarily from respectable journals, was mainly confined to the generic rising phenomenon of customers' eco-friendly purchase intentions, most of the time, without considering any sector, it was critical and interesting to analyze the role of internal motivations in the purchase intention for eco packaged cosmetics. In this sense, and to give justified answers to the research questions, primary data has been collected and analyzed.

#### 5.4.2.1. Data collection

The current study used a survey questionnaire approach to conduct a quantitative research design. More specifically, the primary data was collected through the development of an online survey using Qualtrics Survey Software, in which respondents were asked about their relationship and opinion regarding eco-friendly packaging to gain insights into their perception, more concretely, how eco-packaging makes them feel and also how internal motivations and factors (e.g., self-esteem, self-identity, environmental concern, moral satisfaction) could impact their purchase intention for this type of cosmetics and, implicitly, his/her eco-friendly behavior.

#### Sampling (Participants)

The questionnaire was only available to MTurk employees over the age of 18. Precisely, in order to allow examination of trends, differences, and similarities between genders, both, male and female, of various age groups, were included in the research. This aims to get a better qualitative knowledge of consumers' inner motivations/factors towards cosmetics' eco-packaging, as well as their purchasing intentions.

#### Questionnaire Design

As previously established, an online survey questionnaire (Appendix B) was chosen to determine better and explain cause-and-effect correlations between the variables (Gilbert, 2001). Moreover, once questionnaires are correctly constructed, they can be great data collectors too for obtaining quantitative information about customers' perceptions, views, attitudes, beliefs, experiences, and

previous actions (Bell, 1999), as well as the fact that they are suitable instruments for collecting large amounts of data at low costs (Bryman & Bell, 2007).

In terms of the questionnaire's composition and organization, it was structured as follows:

- **Section 1: Introduction and Agreement** – In this section on MTurk, a brief summary of the study was published, along with a link to the survey. The respondents received a cover letter in which they were told about the duration of the questionnaire (15 minutes), the nature of the research, its aims, and its ethics. Furthermore, before beginning to answer the questions, respondents were asked if they agreed/disagreed with the use of their responses for research purposes.
- **Section 2: Purchase Intent Level (Eco-Packaged Cosmetic)** – The purpose of this part was to determine how much of an impact and shift the image of an eco-packaged cosmetic had on a person's intention and desire to acquire the product in question. As a result, the scale used considered the intention to purchase and the willingness and likeliness to do so.
- **Section 3: Willingness to Pay** – This section assesses the participants' overall willingness to purchase the previously displayed product according to the preceding section, more precisely, whether participants consider the eco-packaging and can pay substantially more (or less) for it.
- **Section 4: General Purchase Intention for Ecological Packaging** – In this part, the participants had to indicate their level of agreement (1 to 9 scale) with the provided statements on the significance they place on the packaging of the sustainable and eco-friendly items they buy.
- **Section 5: Moral Satisfaction** – Here the purpose was understanding how an individual felt morally/ethically while purchasing a product similar to the one illustrated in the illustration, knowing that it was more ecological than the conventional ones.
- **Section 6: Product Ownership** – The goal of this step was to determine if the responder felt a sense of connection to the product displayed.
- **Section 7: Planet Ownership** – In conjunction with the previous segment, this one sought to comprehend the sensation of connection, but instead of being related to the product, it was with the environment and the world in general. If the individual perceives that the planet on which he lives is also his property, and he accepts responsibility for it.
- **Section 8: Personal Norms** – The focus of this part was to determine the impact that individual norms have on respondents' purchasing decisions and if they feel guilty or morally compelled to act in a particular manner to feel good about themselves.
- **Section 9: Self-Identity** – At this stage, when it came to making positive decisions for the environment, we wanted to know if the respondent felt proud of himself for doing so.

- **Section 10: Self-Esteem** – The only target in this section was to discover how the individual felt about himself: was there pride, respect, or value attached to his persona?
- **Section 11: Environment Concern** – This element is highly essential for of the study subject since it highlights the individual’s care for the planet and environment.
- **Section 12: Demographic Data** – Lastly, there was also a section related to respondent’s profile with detailed demographic data such as gender, age group, education, job title, and yearly income.

### Measures

The instrument was mainly based on variables (Appendix A) deemed necessary in previous theoretical research on the ecologically concerned consumer and the individuals' psychology. In this sense, established and validated scales were chosen for data collection to gather accurate information from the respondents. Multiple item scales were used to access the research constructs, which were chosen from the existing literature. In some situations, the constructs were maintained in their original state, while in others, they were modified or merged with similar constructs to match the present study's setting better.

The authors' names and the year of publication of the literature used to perform the survey's questions connected with each variable in research and the number of scale items are provided in the table above (Table 2).

CONSTRUCT	LITERATURE FOR SCALE ITEMS	Nº OF ITEMS	SCALE
<i>Intention Packaging (IP)</i>	(White, Lin, Dahl & Ritchie, 2015)	3	1 to 9
<i>Willingness to Pay (WP)</i>	(Fuchs et al., 2010)	1	1 to 9
<i>General Intention for Ecological Packaging (GIEP)</i>	(Schwepker & Cornwell, 1991)	5	1 to 7
<i>Moral Satisfaction</i>	Adapted from (Stennis et al., 2018)	3	1 to 7
<i>Product Ownership (O)</i>	(Peck & Shu, 2009)	3	1 to 7
<i>Planet Ownership (PO)</i>	(Felix & Almaguer, 2019)	3	1 to 7
<i>Personal Norms (PN)</i>	(Kim & Seock, 2019)	4	1 to 7
<i>Self-Identity (SI)</i>	(Lee, 2009)	3	1 to 7
<i>Self-Esteem (SE)</i>	(Roserberg, 1989)	10	1 to 7
<i>Environmental Concern (EC)</i>	(Johnson & Chattaraman, 2018)	6	1 to 7

**Table 2** – Proposed constructs, number of scale items, and references to relevant literature.

#### **5.4.2.2. Data Analysis and Hypothesis Tests**

Structural Equation Modeling (SEM) was chosen to evaluate the previously mentioned assumptions as the data analysis method. SEM is a statistical method for modeling multiple variable relationships. The partial least squares technique (PLS-SEM) was implemented using the application SmartPLS 3.2.7. (Sarstedt et al., 2019).

The PLS was also used to corroborate the hypothesis by elucidating the relationship between latent variables. PLS-SEM is also a suitable method for estimating model parameters in a way that optimizes the variance explained by endogenous variables, making it a good choice for theory development and prediction research (Hair et al., 2017).

Two-step procedures were carried out to organize the use of this analytical approach better: the first was the evaluation of the measurement model, and the second was the computation of the structural model and hypothesis testing. It is important to note that all latent variables were linked to one another throughout the structural model evaluation step.



## 6. RESULTS AND DISCUSSION

The purpose of this chapter, as the name implies, is to describe the significant findings from the data analysis based on the quantitative data obtained.

### 6.1. SAMPLE CHARACTERIZATION

Structural Equation Modeling (SEM) was selected as the data analysis method to test the proposed hypotheses. The data was collected on a sample of 300 respondents and yielded 253 valid questionnaires during June 2021 through the Amazon Turk platform.

The descriptive analysis (Table 3) shows that a fair share of respondents is males (61.26%). Our results also show that most of our respondents are between 25-34 (49.01%). Concerning respondents' education level, most respondents had a bachelor's degree level (60.87%). Regarding the current job or occupation, our findings indicate that many of our respondents are either full-time (69.57%) or part-time employees (15.42%). Finally, respecting the total household income, most of our responses exhibit an income of under \$25,000 (22.53%).

Appendix C has previously said has a detailed breakdown of the sample examined.

Characteristics	Share in the sample	Frequency	Results (%)
Ages Groups	25-34	<b>124</b>	<b>49.01</b>
	35-44	64	25.30
	45-54	30	11.86
Gender	Male	<b>155</b>	<b>61.26</b>
	Female	97	38.34
Education	High School Degree (or equivalent)	45	17.79
	Bachelor's Degree	<b>154</b>	<b>60.87</b>
	Master's Degree	52	20.55
Work Status	Working full-time	<b>176</b>	<b>69.57</b>
	Working part-time	39	15.42
Total Household Income	Under \$25,000	<b>57</b>	<b>22.53</b>
	\$25,000 - \$29,999	45	17.79
	\$50,000 - \$59,999	43	17.00

**Table 3** – Sample Characterization (synthesis).

## **6.2. OPERATIONALIZATION OF VARIABLES**

As previously demonstrated, the final survey contained 17 questions organized into ten sections (see Appendix B) to each variable individually and in detail. Furthermore, the sample comprised emerging adults recruited online by Amazon Mechanical Turk (Amazon Turk). Since the target population was not restricted by nationality or country of residence, the survey was launched in English to make it accessible and understandable for a more significant number of people from all nationalities. Additionally, it is also worth noting that the questionnaire was presented to the broader public before being released on Amazon Turk. This quantitative technique was tested and validated in a pre-test by 15 volunteers, who proofread it and offered ideas for improvement.

In order to get a more valuable sample, a total of 47 answers of the participants were removed from the dataset, either because they followed an unusual pattern (e.g., they only answered 1 or 9 on all scales) or because they ended up taking a few seconds to complete the questionnaire. However, there were 253 valid observations in the final dataset.

## **6.3. ASSESSMENT OF THE MEASUREMENT MODEL**

Reflective measures were used to capture all constructs. In other words, each construct's indicators are linked and interchangeable (Hair et al., 2013). Table 4 shows the reliability and validity statistics.

### **6.3.1. Indicator Reliability**

As seen in Table 2, the majority of loadings have values greater than 0.5. However, the components (SE3), (SE7), (SE8), and (SE10) have loadings that are significantly lower than 0.5; nonetheless, loadings of 0.4 or higher are also believed to be acceptable (Hulland, 1999). Although removing these items improves composite reliability, it drastically reduces the variation explained by the “Planet Ownership” construct. In this sense, most items have a reasonable degree of reliability, and the lower items (SE3, SE7, SE8, and SE10) will not be considered for deletion.

### **6.3.2. Internal Consistency Reliability and Convergent Validity**

To establish the convergent validity of the measured constructs, two tests were used: (1) Cronbach's Alpha and Composite Reliability; and (2) Average Variance Extracted (AVE). The composite reliability measures how well the indicators represent the latent construct in common (Hair et al., 2013). Thus, according to Hair et al. (2017), outer loadings should be more than 0.708, and the average variance extracted (AVE) value should be higher than 0.5 to obtain convergent validity.

As a result, scores between 0.60 and 0.70 are considered acceptable in an exploratory study, whereas values between 0.70 and 0.95 are considered satisfactory (Hair et al., 2013).

Table 4 shows that all constructs have adequate composite reliability when used collectively. Additionally, several researchers propose that a minimum Cronbach alpha of 0.7 be used (Hair et al., 2013, Nunnally, 1978). Churchill (1979), on the other hand, contends that a Cronbach alpha value of 0.6 is appropriate. According to Fornell and Larcker (1981), even if AVE is less than 0.5, but composite reliability is more than 0.6, the construct's convergent validity is sufficient. This value indicates that latent variables account for at least 50% of the measurement variation.

With this information, it is reasonable to infer that the Cronbach alpha for all constructs in this study corresponds to an acceptable threshold.

<b>Factor and Indicators</b>	<b>Factor Loading</b>	<b>AVE</b>	<b>CR</b>	<b>Alpha</b>
<b>Personal Norms</b>		0.728	0.915	0.875
PN1	0.849			
PN2	0.815			
PN3	0.858			
PN4	0.891			
<b>Self-Identity</b>		0.803	0.924	0.877
SI1	0.894			
SI2	0.905			
SI3	0.889			
<b>Self-Esteem</b>		0.270	0.786	0.704
SE1	0.589			
SE2	0.568			
SE3	0.466			
SE4	0.501			
SE5	0.553			
SE6	0.559			
SE7	0.479			
SE8	0.473			
SE9	0.544			
SE10	0.449			
<b>Moral Satisfaction</b>		0.795	0.921	0.871
MS1	0.906			
MS2	0.862			
MS3	0.905			
<b>Product Ownership</b>		0.878	0.956	0.931

O1	0.936			
O2	0.933			
O3	0.942			
<b>Environmental Concern</b>		0.652	0.918	0.892
EC1	0.861			
EC2	0.848			
EC3	0.818			
EC4	0.679			
EC5	0.827			
EC6	0.797			
<b>Planet Ownership</b>		0.801	0.923	0.875
PO1	0.905			
PO2	0.866			
PO3	0.912			
<b>General Intention for Eco-Packaging</b>		0.644	0.900	0.861
GIEP1	0.848			
GIEP2	0.824			
GIEP3	0.735			
GIEP4	0.776			
GIEP5	0.824			
<b>Purchase Intention (Packaging)</b>		0.856	0.947	0.916
PI1	0.904			
PI2	0.944			
PI3	0.928			
<b>Willingness to Pay</b>		1.000	1.000	1.000
WP1	1.000			

**Table 4 – Convergent Validity (Loading Factor Values).**

### 6.3.3. Discriminant Validity

After analyzing the item's reliability and the measurement model's convergent validity, the discriminant validity of the measure was investigated. For this purpose, the Fornell-Lacker criteria and the Heterotrait-Monotrait ratio of correlations (HTMT) criterion were used.

According to the Fornell-Lacker criterion, the square root of the AVE for each construct should be greater than the inter-construct connections (Fornell & Larcker, 1981). In other words, it defines how empirically distinct a construct is from other constructs in the path model (Fornell & Larcker, 1981), and the HTMT value between two constructs must be less than 0.85 (Henseler et al., 2015).

In this present study, the Heterotrait-Monotrait ratio of correlations (HTMT) was used to test discriminant validity (Table 5) since it has been shown to perform better than the FornellLacker criteria (Henseler, Ringle, & Sarstedt, 2014). In our case, the HTMT values are less than 0.90, indicating that discriminant validity across constructs has been established. However, unfortunately, the construct "willingness to pay" has a higher HTMT indicating a problem with redundancy in the item definition, thereby reducing this construct's reliability (Diamantopoulos et al., 2012; Drolet & Morrison, 2001) and being an aspect capable of improvement in the following research.

	EC	GIEP	MS	SI	PN	PO	O	PI	SEI	WP
Environmental Concern	0.807									
General Intention	0.673	0.802								
Moral Satisfaction	0.689	0.680	0.892							
Self-Identity	0.789	0.565	0.705	0.896						
Personal Norms	0.780	0.572	0.727	0.806	0.853					
Planet O.	0.593	0.484	0.559	0.711	0.627	0.895				
Product O.	0.523	0.430	0.592	0.603	0.751	0.512	0.937			
Purchase Intention	0.476	0.524	0.601	0.542	0.644	0.441	0.645	0.925		
Self-Esteem	0.521	0.371	0.443	0.562	0.597	0.437	0.595	0.492	0.520	
Willingness to Pay	0.430	0.464	0.476	0.399	0.570	0.346	0.566	0.656	0.428	1.00

**Table 5 – Discriminant Validity.**

## 6.4. ASSESSMENT OF THE STRUCTURAL MODEL

According to the previous results, the measurement model has high individual item reliability, convergent validity, and discriminant validity. As a result, the measurement model has enough robustness to evaluate the connection between latent variables and the dependent variable. Therefore, the structural model is examined in this part to establish its explanatory strength and test the proposed hypothesis.

### 6.4.1. Collinearity

To investigate collinearity, the Variance Inflation Factor (VIF) is employed. According to Hair et al. (2013), a tolerance level of 0.20 or less (analogous to a VIF of 5 or above) suggests multicollinearity issues. The findings in Table 6 reveal that the VIF values for all variables range between 1.000 and 2.921, implying that collinearity concerns do not impact the results.

	Env. Concern	General Intention	Moral Satisfaction	Planet O.	Product O.	Purchase Intention	Willigness to Pay
<i>Env. Concern</i>	-	1.904	-	-	2.582	-	-
<i>Moral Satisfaction</i>	-	1.904	-	-	-	-	-
<i>Self-Identity</i>	1.000	-	-	1.000	-	-	-
<i>Personal Norms</i>	-	-	1.000	-	2.921	-	2.296
<i>Planet Ownership</i>	-	-	-	-	-	1.356	-
<i>Product Ownership</i>	-	-	-	-	-	1.356	2.296
<i>Self-Esteem</i>	-	-	-	-	1.573	-	-

**Table 6** – Inner VIF Values.

### 6.4.2. Coefficient of Determination (R2)

The coefficients of determination of values of 0.75, 0.50, and 0.25 are regarded as substantial, moderate, and weak, correspondingly (Henseler, Ringle & Sinkovics, 2009).

Following data analysis, the R<sup>2</sup> values for Moral Satisfaction (0.570), Environmental Concern (0.682), Planet Ownership (0.505), Product Ownership (0.610), and General Intention for Eco-Packaging (0.542) were deemed moderate, while Purchase Intention (Packaging) (0.433) and Willingness to Pay (0.368) were presumed low.

Based on preliminary information, it is inferred that constructs such as Moral Satisfaction, Environmental Concern, Planet Ownership, Product Ownership, and General Intention for Eco-Packaging had reasonably high and acceptable by behavioral research criteria (Cohen, 1988).

### **6.4.3. Cross-validated Redundancy (Q<sup>2</sup>)**

Predictive relevance, also known as the Stone Geisser indicator, is a test that analyzes the model's accuracy. When the Q<sup>2</sup> value is greater than zero, Hair et al. (2013) conclude that the predictive relevance of the model's routes is acceptable. In other words, Q<sup>2</sup> allows us to assess the predictive significance of each exogenous construct for a specific endogenous construct.

In this sense, values above zero are related to constructs like Environmental Concern (0.433), General Intention for Eco-Packaging (0.341), Moral Satisfaction (0.445), Planet Ownership (0.399), Product Ownership (0.523), Purchase Intention (Packaging) (0.359) and Willingness to Pay (0.356).

As advised in the literature, the latter values were acquired through blindfolding with an omission distance of D=7 (Hair et al., 2016).

### **6.4.4. Effect Size (F<sup>2</sup>)**

Effect Size, often known as Cohen's indicator, determines how useful each construct is for model fit (Hair et al., 2013). A latent variable's impact size has parameters of 0.02, 0.15, or 0.35, which reflect small, medium, or considerable indications, respectively (Cohen, 1988).

The findings indicate that the connections between Environmental Concern > General Intention for Eco-Packaging (0.173), Moral Satisfaction > General Intention for Eco-Packaging (0.195), Personal Norms > Purchase Intention for Eco-Packaging (0.420), Personal Norms > Environmental Concern (0.192), Personal Norms > Moral Satisfaction (0.168), Personal Norms > Product Ownership (0.449), Product Ownership > Purchase Intention for Eco-Packaging (0.420), Self-Identity > Environmental Concern (0.225), and Self-Identity > Planet Ownership (1.020) represent a great and moderate utility for model adjustment. The remaining values vary from 0.000 to 0.099, implying that the impacts are less substantial even if statistically significant.

## **6.5. ASSESSMENT OF THE STRUCTURAL MODEL**

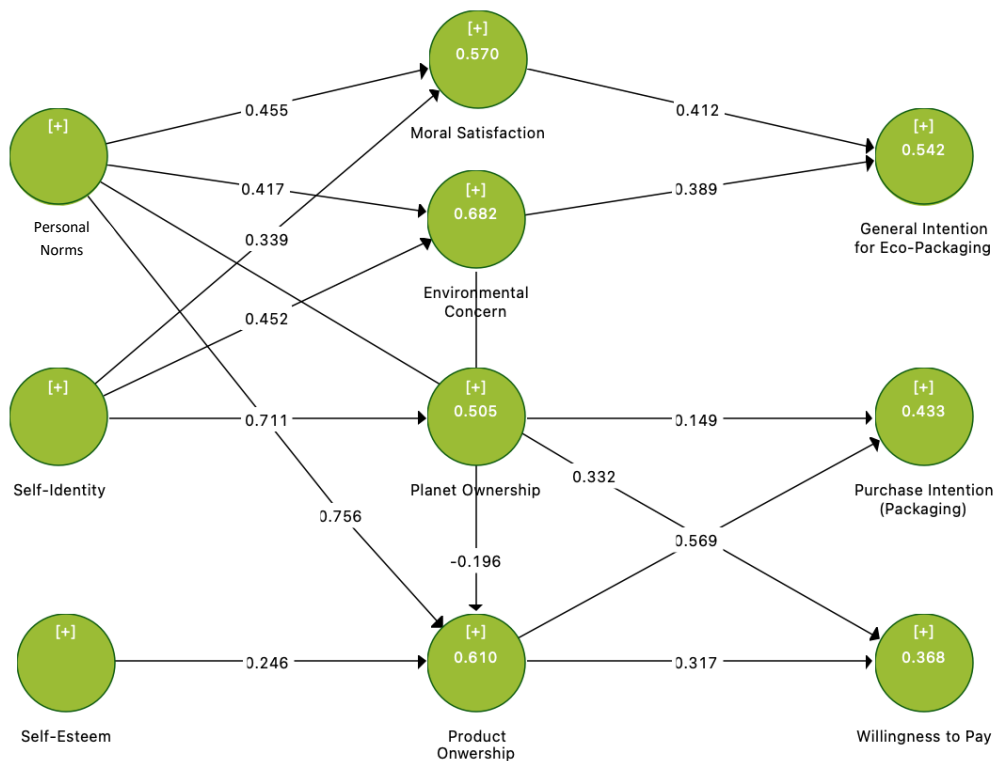
The following model was evaluated using the coherent PLS algorithm (or PLS<sub>c</sub>), not only because our model only includes reflective constructs, but also because it incorporates correlation corrections (Dijkstra & Henseler, 2015) and because the standard PLS algorithm tends to underestimate the R-

squared value of the endogenous constructs (Dijkstra, 2010). Table 7 summarizes the empirical data regarding the hypotheses.

Figure 2 depicts the measurement model with regression weights, and table 5 displays the study’s convergent validity: reliability, consistency, and validity.

Figure 2 illustrated the structural model and was obtained after a bootstrapping of 1000 iterations, deriving standard errors and calculating t-values as shown in Table 7 below. The findings show that all hypotheses are supported at a significant level of 0.05.

Also, it can be concluded that the highest significant relationship is (H1B), the one between Personal Norms and Product Ownership ( $\beta=0.756$ ), followed by (H2c) Self-Identity—Planet Ownership ( $\beta=0.711$ ), (H5a) Product Ownership—Purchase Intention (Packaging) ( $\beta=0.569$ ), (H1a) Personal Norms—Moral Satisfaction ( $\beta=0.455$ ), (H2b) Self-Identity—Environmental Concern ( $\beta=0.452$ ), (H1d) Personal Norms—Environmental Concern ( $\beta=0.417$ ), (H4a) Moral Satisfaction—General Intention for Eco-Packaging ( $\beta=0.412$ ), (H6a) Environmental Concern—General Intention for Eco-Packaging ( $\beta=0.389$ ), (H2a) Self-Identity—Moral Satisfaction ( $\beta=0.339$ ), (H1c) Personal Norms—Willingness to Pay ( $\beta=0.332$ ), (H5b) Product Ownership—Willingness to Pay ( $\beta=0.317$ ), (H3a) Self-Esteem—Product Ownership ( $\beta=0.246$ ), (H7a) Planet Ownership—Purchase intention (Packaging) ( $\beta=0.149$ ), and lastly (H6b) Environmental Concern—Product Ownership ( $\beta= - 0.196$ ).



**Figure 2 – Structural Model.**



### 6.5.1. Hypothesis Testing

Overall, the findings in table 7 above provide evidence to support all the hypotheses proposed (H1-H7). According to these results, the study's constructs have a beneficial effect and influence general intention for eco-packaging and its purchase and willingness to pay.

Hypothesis	Hypothesized Relationship	Beta Coefficient	t-Statistics	Decision
H1a	Personal Norms → Moral Satisfaction	0.455	6.904*	Supported ✓
H1b	Personal Norms → Product Ownership	0.756	9.845*	Supported ✓
H1c	Personal Norms → Willingness to Pay	0.332	3.931*	Supported ✓
H1d	Personal Norms → Environmental Concern	0.417	4.970*	Supported ✓
H2a	Self-Identity → Moral Satisfaction	0.339	4.192*	Supported ✓
H2b	Self-Identity → Environmental Concern	0.452	5.308*	Supported ✓
H2c	Self-Identity → Planet Ownership	0.711	16.398*	Supported ✓
H3a	Self-Esteem → Product Ownership	0.246	4.189*	Supported ✓
H4a	Moral Satisfaction → General Intention for Eco-Packaging	0.412	5.510*	Supported ✓
H5a	Product Ownership → Purchase Intention (Packaging)	0.569	7.947*	Supported ✓
H5b	Product Ownership → Willingness to Pay	0.317	3.827*	Supported ✓
H6a	Environmental Concern → General Intention for Eco-Packaging	0.389	5.649*	Supported ✓
H6b	Environmental Concern → Product Ownership	-0.196	2.558*	Supported ✓
H7a	Planet Ownership → Purchase Intention (Packaging)	0.149	2.182*	Supported ✓

Note: \*  $p < 0.05$ , <sup>NS</sup> not significant.

**Table 7** - Results of Hypothesis Testing.

## **7. GENERAL DISCUSSIONS AND CONCLUSIONS**

In this present research, our framework explains how individuals' internal elements can relate to their purchase intention for eco-packaged cosmetics and their willingness to purchase this kind of product. Following a description of the hypothesis testing results, the current chapter relates the findings to the expectations from the literature review and the previously stated research questions.

In sum, it was discovered that constructs such as personal norms, self-identity, and self-esteem indirectly affect our dependent variables, as they have a direct influence on the constructs such as moral satisfaction, environmental concern, planet ownership, and product ownership, which in turn influence the dependent variables such as general intention for eco-packaging, purchase intention (packaging), and willingness to pay. In this respect, the factors would not influence the dependent variables under research if they were not given this context and framework. Overall, this research has demonstrated that the research model is valuable and thorough in explaining complex issues.

### **7.1. THEORETICAL IMPLICATIONS**

This study aims to improve consumer understanding and perception of pro-environmental behavior regarding eco-friendly packaged cosmetics and learn more about the underlying motivations driving these products' specific intentions. Furthermore, it provides a synthesis of previous academic literature since the investigation was based on the findings of other prior investigations. Based on our results, researchers may lay the groundwork for additional in-depth studies into sustainable consumer behavior concerning eco-packaged cosmetics.

To begin with, the findings give solid empirical support for the relevance of green self-identity in an environmentally conscious consumption context. While previous studies have examined the direct impact of green self-identity on environmental behaviors (e.g., Fielding et al., 2008; Mannetti et al., 2004), there has been little study on the link between green identity and other personal constructs. Therefore, the findings of this study demonstrate that there is not only a clear relationship between self-identity and environmental concern (H2b) (Sparks & Shepherd, 1992; Mannetti et al., 2004) but also well as a correlation between the sense of ownership of the world and the perception of moral satisfaction (H2a and H2c).

As we know from past studies, when individuals identify with and feel linked to each other emotionally (Batson, 2011; Preston & de Waal, 2002), they will assist others even if it costs them. Applied in our context, when individual's embrace and respect their "greener" selves, they will desire to protect an entity with whom they have a bond and connection, even if it is the planet earth itself – incorporation into one's self-identity. Also, we see that individuals who are true to themselves, conscious of who they are and what defines them as individuals, tend to have higher moral satisfaction. However, it can be considered that individuals tend to be something to feel good - then all moral actions are considered selfish (Bortolotti & Jefferson, 2016). The selfish pleasure derived from helping others (or the planet) is conditional on one's altruistic motivations and consequently derived from the individual's self-identity.

In terms of the conclusions regarding the influence of personal norms, as expected, this variable had a positive impact on moral satisfaction (H1a), product ownership (H1b), willingness to pay (H1c), and environmental concern (H1d). As evident, personal norms are a crucial internal factor that significantly impacts the variables under consideration.

It is also worth noting the favorable impact that the variable environment concern had not only on the dependent variable's general intention for eco-packaging (H6a) but also, perhaps more surprisingly, on the product ownership (H6b). This previous relationship between environmental concern and product ownership leads us to conclude that a person with a higher feeling of environmental care will be more persuaded to have a psychological sense of belonging for an environmentally friendly item, such as the eco-cosmetic used in this study. Also, past research has shown, and this is consistent with what was previously concluded, that the more concentrated an individual's psychological ownership is, the closer their connection with the item will be (Pierce et al., 2003; Van Dyne & Pierce, 2004); far more when the item presents characteristics (e.g., sustainable packaging) that are in line with the individual's ideals. In this way, this research was the first to come to this direct connection between environmental concern and psychological product ownership.

Furthermore, this present study contributes to the current body of information on psychological ownership in various ways. First, we use the concept of planet ownership (psychological ownership of the planet Earth) and demonstrate how this rarely researched construct is related to pro-environmental consumer intentions, such as a desire to acquire an eco-packaged cosmetic and an enhanced willingness to pay for the item. Secondly, prior consumer research on psychological ownership has never conducted a study that addresses product and planet ownership based on psychological ownership of the individual – "this is *mine*" – concentrating on a single operation of the construct (e.g., Lessard-Bonaventure & Chebat, 2015; Brasel & Gips, 2014; Peck & Shu, 2009). In this sense, as previously stated, we distinguish between the individual level of product (e.g., I feel like *I own* this green cosmetic") and planet ("This is *my* planet") psychological ownership in response to Dawkins et al. (2017) demand for a multi-dimensional conception of psychological ownership.

Since planet ownership connects to different values than product ownership, we suggest that this differentiation is essential for understanding the true motives for eco-friendly intentions. As a result of our research, we discovered that both types of psychological ownership (product and planet) stimulated respondents' interest in the cosmetics with eco-packaging, as they felt not only an interest in the item being shown but also a willingness to pay more for a product that displayed sustainable aesthetic characteristics. Surprisingly, the variables of environmental concern and personal norms had only a positive influence on the construct of product ownership, suggesting that this might be something that should be investigated further. Finally, while both types of psychological ownership are positively related to the purchase intention for eco-packaging, it is essential to consider the driving motives behind these relationships. In this way, our findings complement those of Bauer et al. (2012) and Shrum et al. (2014), who claimed that materialistic principles are frequently associated with selfish and extrinsic motivations. In this regard, our research has revealed that internal reasons such as self-esteem, self-identity, and personal norms can also play a significant role. In order to emphasize these connections, both personal norms, self-esteem, and environmental concern were influenced favorably in terms of product ownership.

Furthermore, when compared to product and planet ownership, moral satisfaction and environmental concern had minimal influence on the dependent variables (purchase intention and willingness to pay). In this regard, the visual effect of the shown figure demonstrates that people value an object more when they see and feel they own it (Beggan, 1992; Dommer & Swaminathan, 2013; Peck & Shu, 2009), which encourages the desire to obtain it. As a result, there's a gap between general intention for eco-packaging and purchase intention for a product when a customer visualizes it. In this regard, our study is one of the first to look at how product and planet ownership affects purchase intention for eco-packaging and how interior motives like self-identity, personal standards, and self-esteem might influence ownership.

Finally, we may comprehend the factors that influenced the overall aim of eco-packaging, and as seen above, they were distinct from those that influenced purchasing intention and willingness to pay. As expected, people's need for moral fulfillment leads them to become more interested in things that might help them feel like they're doing the right thing—"would make me feel like a better person" (H4a). This pleasant feeling is dubbed the "green consumption effect" (Tezer & Bodur, 2020).

## **7.2. MANAGERIAL IMPLICATIONS**

This study has significant managerial implications since it informs decision-makers and marketing managers about the personal motivations that impact consumers' eco-friendly behavior regarding green cosmetics. According to the findings of this study, several personal motivating elements can affect the decision to choose ecological packaging.

As a result, one of the most important implications of this research is the need to elicit personal motives such as – personal norms, moral satisfaction, environmental concern, planet ownership, and product ownership. Companies, for example, can strive to build a widespread sense of ownership, striking a balance between the planet and product ownership (e.g., advertising messaging in the product packaging) (Felix & Almaguer, 2019). Cosmetics businesses might also add messages in their advertising that emphasize green behavior as a personal norm in today's society.

Furthermore, appropriate content and method of communication that aim to modify customers' attitudes toward eco-packaging and influence their purchase decisions might enhance the consumer use of these items (Orzan et al., 2018).

People are becoming more conscious of their health and the environment, so consumer preference will shift toward more natural cosmetics products and environmentally conscious packaging (e.g., biodegradable, recyclable), which will have a less negative impact on the planet. As a result, marketers and package managers must be clear about their market segment because environmental concerns and personal motivations heavily influence consumer purchasing behavior on sustainable packaging. Designing appealing and successful marketing techniques to reach out to customers may help marketing practitioners and multinationals. Given the environmental advantages, marketers should pay particular attention to personal standards and willingness to increase green buying behavior. They should do so by devising some intriguing advertising strategies that highlight the environmental benefits of eco-friendly packaging and the personal benefits that these products entail for the consumer, which, as a result, lead to green consumerism patterns.

## 8. LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Aside from the previous study's findings, more research is needed to understand and improve the understanding of eco-packaged cosmetics customers. Firstly, although known measures of earlier studies were utilized, various methods of assessing the same characteristics may provide different results. It should also be noted that while this study provides some preliminary evidence on the links between constructs (e.g., personal norms, moral satisfaction, planet ownership, product ownership, and consumer intention), its causal interpretation necessitates a more rigorous experimental rather than cross-sectional methodology. Additionally, as previously stated, the self-esteem measure showed lower Cronbach alpha compared to other constructs, which leads us to expect that there may be an improvement in this regard. Also, the HTML value of the construct "willingness to pay" was higher than 0.90, which is deemed not desirable, enabling an improvement in this construct.

Secondly, to the best of our knowledge, this study is the first to combine psychological ownership and product ownership in the same framework with other personal/inner motivators. However, to study "planet ownership," only the Felix and Almaguer (2019) "my planet" scale was employed, therefore for future researchers, utilizing both "my" and "our" scales will make a significant difference when also compared with the construct product ownership.

Thirdly, we argued that an experiment that enables the inquiry to feel the eco-product (in comparison to another conventional product) could provide and trigger some "consciousness." According to previous studies (Brasel & Gips, 2014), touch improves psychological ownership. In terms of psychological ownership, we could assume that customers who have more physical contact with nature have higher psychological ownership for the planet. This approach for research consideration is attractive, mainly since the impact of touch works even if it is envisioned (Peck et al., 2013). Moreover, it is essential to state that product and packaging perception studies are challenging since each responder may feel the difference, and their emotions might impact their response.

Additionally, future research focusing on a more significant number of cosmetics users would provide a better understanding of the package qualities that could be considered to meet consumer expectations since our study gathered users and non-users of cosmetics without any distinction. In this regard, a study that focuses entirely on cosmetic consumers might provide additional insights into our research line. Also, the current research concentrated exclusively on the package rather than the product itself. In this sense, other studies might look at how eco-design components on cosmetics packaging impact subsequent attitudes and actions about items. Researchers can go even further by expanding the study to see whether there are any variations in the outcomes based on age, gender, level of expertise, and cultural values (Orzan et al., 2018).

Moreover, the present study only measures customers' intentions, not their actual behavior. In future studies, behavior may be used in addition to intention. As a result, a deeper analysis might look at a few more possible influencing elements for customer purchase intention and "consciousness" for eco-packaged cosmetics, such as reference group, knowledge, perceived consumer effectiveness (Kianpour et al., 2014), familiarity with eco-products, perceived sense of environmental responsibility (Hojnik, Ruzzier & Konečnik Ruzzier, 2019), social influence, habits (White, Habib & Hardisty, 2019), and others.

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## 10.APPENDIX

### 10.1. APPENDIX A – MAIN CONSTRUCTS DEFINITIONS

Construct	Definition	References
<b>Willingness to Pay</b>	<i>Willingness to Pay</i> “is a measure of the value that a person assigns to a consumption or usage experience in monetary units (p. 85)”.	(Homburg et al., 2005)
<b>Purchase Intention</b>	<i>Purchase Intention</i> refers to “the person’s motivation in the sense of his or her conscious plan to exert effort to carry out a behaviour”.	(Eagly & Chaiken, 1993)
<b>Moral Satisfaction</b>	<i>Moral Satisfaction</i> , also known as “warm-glow”, describes the emotional experience that comes from giving and contributing to others. Moreover, this satisfaction, or “warm glow”, indicates the selfish pleasure obtained from doing good, despite of the real effect of one’s contribution.	(Andreoni, 1989, 1990)
<b>(Psychological) Product Ownership</b>	<i>Psychological Ownership</i> is a situation in which a person believes that an object is “theirs” despite the fact it is neither physically nor legally theirs.	(Pierce, Kostova, & Dirks, 2003)
<b>(Psychological) Planet Ownership</b>	<i>Psychological Planet Ownership</i> is a condition in which humans might develop a psychological attachment to the planet earth. In this sense, it is expected that individuals would perceive the planet as appealing, approachable, accessible, and manipulable. Furthermore, individuals might possibly experience a feeling of control over the planet, getting to know it well and investing themselves in it.	(Felix & Almaguer, 2019)
<b>Personal Norms</b>	<i>Personal Norms</i> are defined as self-expectations and duties that reflect internal ideals and are felt as moral obligations to contribute to decision-making processes.	(Schwartz, 1977)
<b>Self-Identity</b>	<i>Self-Identity</i> is described as the label with which one describes oneself.	(Cook, Kerr, & Moore, 2002)
<b>Self-Esteem</b>	<i>Self-Esteem</i> is a person’s subjective assessment of his or her own value as a person. Furthermore, it is often defined as the sense that one is good enough, thus, self-esteem includes sentiments of self-acceptance and self-respect.	(Orth & Robins, 2014)
<b>Environmental Concern</b>	The term <i>Environment Concern</i> relates to “both a specific attitude directly determining intentions or more broadly to a general attitude or value orientation” regarding the environment.	(Fransson & Garling, 1999, p.370)

## 10.2. APPENDIX B – QUESTIONNAIRE ITEMS

### 10.2.1. Questionnaire Variables and Scales

Variable	Code	Items	Scale	Source
<i>Purchase Intention (Packaging)</i> (PI)	IP1	How likely would you be to purchase the product you just saw?	1 to 9	(White, Lin, Dahl & Ritchie, 2015)
	IP2	How willing are you to purchase the product you just saw?		
	IP3	How inclined are you to purchase the product you just saw?		
<i>Willingness to Pay</i> (WP)	WP	How much would you be willing to pay for the sustainable-packaged facial cleanser relative to the average facial cleanser?	1 to 9	(Fuchs et al., 2010)
<i>General Intention for Ecological Packaging</i> (GIEP)	IEP1	I would purchase a product in a biodegradable package before purchasing a similar product in a nonbiodegradable package.	1 to 7	(Schwepker & Cornwell, 1991)
	IEP2	I would purchase a product in a recyclable package before purchasing a similar product in a package which is not recyclable.		
	IEP3	I would be willing to purchase some products (now bought in smaller sizes) in larger packages with less frequency.		
	IEP4	I would purchase a product with an untraditional package design (for example, round where most are square) if it meant creating less solid waste.		
	IEP5	I would purchase a less attractively packaged product if I knew that all unnecessary plastic and or paper covering had been eliminated.		
<i>Moral Satisfaction</i> (MS)		Buying a facial cream in this packaging, instead of the normal/conventional packaging...	1 to 7	Adapted from (Steenis et al., 2018)
	MS1	... would feel like doing the morally right thing.		
	MS2	... would make me feel like a better person.		
	MS3	... would give me a good feeling because I am supporting an ethically responsible practice.		
<i>Product Ownership</i> (O)	PO1	I feel like this green cosmetic is mine.	1 to 7	(Peck & Shu, 2009)
	PO2	I feel a very high degree of personal ownership of this green cosmetic.		
	PO3	I feel like I own this green cosmetic.		

	O1	This is my planet		
<i>Planet Ownership (PO)</i>	O2	I feel very high degree of personal ownership for planet Earth.	1 to 7	(Felix & Almaguer, 2019)
	O3	I sense that this is my planet		
	PN1	I feel morally obligated to purchase eco-friendly cosmetics, regardless of what others say.		
<i>Personal Norms (PN)</i>	PN2	I would feel guilty if I bought non-eco-friendly cosmetics.		
	PN3	I would be a better person if I purchased eco-friendly cosmetics.	1 to 7	(Kim & Seock, 2019)
	PN4	When I buy new cosmetics, I feel morally obligated to prioritize selecting eco- friendly cosmetics over the alternatives.		
	SI1	Supporting environmental protection makes me feel that I'm an environmentally responsible person.		
<i>Self-Identity (SI)</i>	SI2	I feel proud of being a green person.	1 to 7	(Lee, 2009)
	SI3	Supporting environmental protection makes me feel meaningful.		
	SE1	On the whole, I am satisfied with myself.		
<i>Self-Esteem (SE)</i>	SE2	At times I think I am no good at all.		
	SE3	I feel that I have a number of good qualities.		
	SE4	I am able to do things as well as most other people.		
	SE5	I feel I do not have much to be proud of.	1 to 7	(Rosenberg, 1989)
	SE6	I certainly feel useless at times.		
	SE7	I feel that I'm a person of worth, at least on an equal plane of others.		
	SE8	I wish I could have more respect for myself.		
	SE9	All in all, I am inclined to feel that I am a failure.		
	SE10	I take a positive attitude toward myself.		

Environmental Concern (EC)	EC1	I try to purchase products and services that not only meet my needs but will be of minimal harm to the environment.	1 to 7	(Johnson & Chattaraman, 2018)
	EC2	I try to use items that are recyclable.		
	EC3	I try to cut down on disposal of things.		
	EC4	I recycle.		
	EC5	I try to use items that are reusable.		
	EC6	I make sure my actions are not harmful to the society.		

### 10.2.2. Eco-Packaging Cosmetic<sup>1</sup>



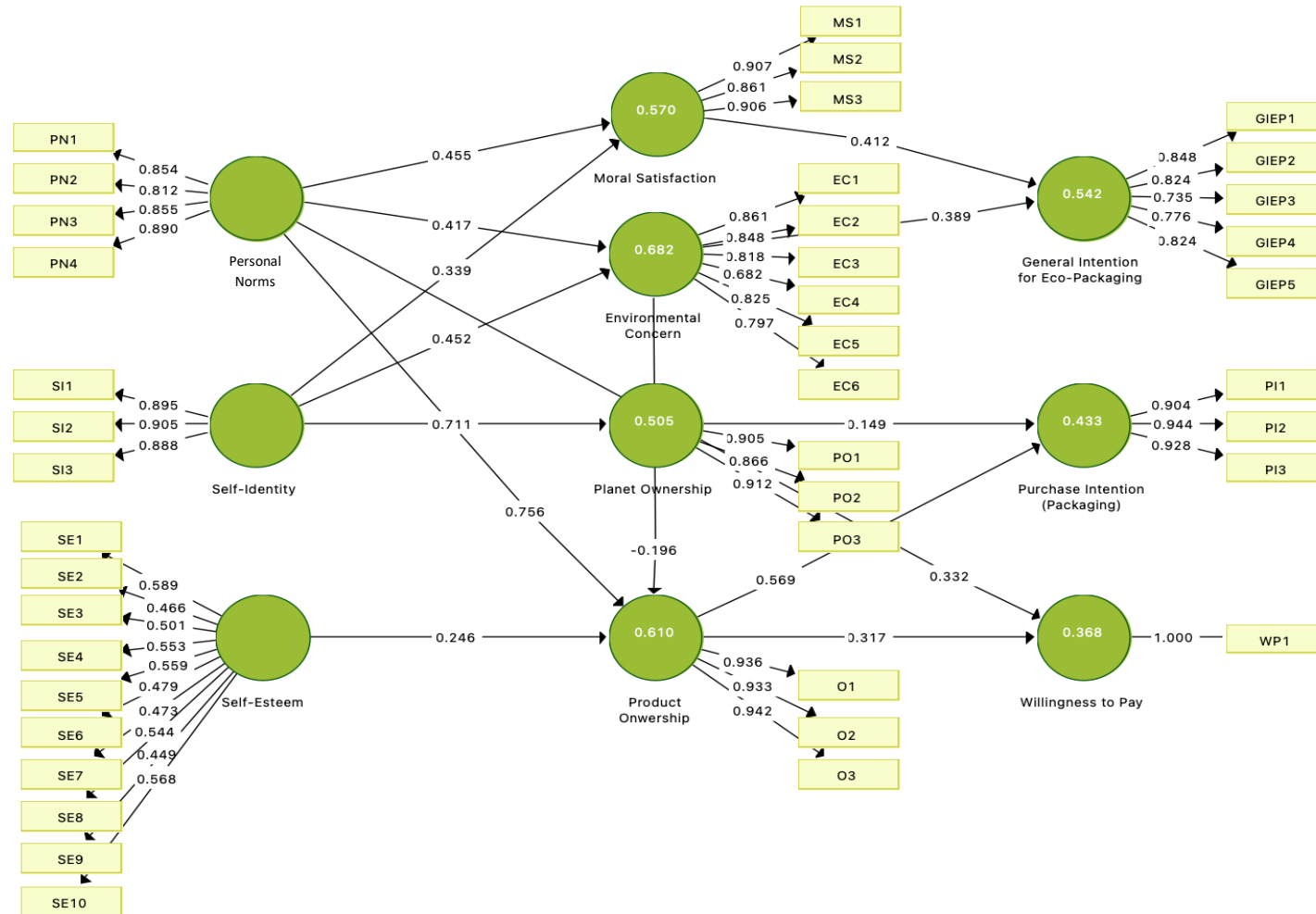
<sup>1</sup> Illustrative image to represent an Eco-Packaging Cosmetic. The image strongly resembles an ecological package (such as the use of glass, green color, and the claim "One World to Protect"). Furthermore, "Youth to the People" is an eco-conscious, charity business devoted to not only having a great impact on customers' skin but also having a minimum impact on the environment.

**10.3. APPENDIX C – COMPLETE SAMPLE CHARACTERIZATION**

<b>CHARACTERISTICS</b>	<b>SHARE IN THE SAMPLE</b>	<b>FREQUENCY</b>	<b>RESULTS (%)</b>
<b>Age Groups</b>	Under 18	0	0
	18-24	24	9.49
	25-34	<b>124</b>	<b>49.01</b>
	35-44	64	25.30
	45-54	30	11.86
	55-64	9	3.56
	Over 65	2	0.79
<b>Gender</b>	Male	<b>155</b>	<b>61.26</b>
	Female	97	38.34
	Other	1	0.40
<b>Education</b>	Less than High School Degree	2	0.79
	High School Degree (or equivalent)	45	17.79
	Bachelor's Degree	<b>154</b>	<b>60.87</b>
	Master's Degree	52	20.55
<b>Work Status</b>	Working full-time	<b>176</b>	<b>69.57</b>
	Working part-time	39	15.42
	Unemployed	11	4.34
	A homemaker or stay-at-home parent	8	3.16
	Student	11	4.35
	Retired	4	1.58
	Other	4	1.58
<b>Total Household Income</b>	Under \$25,000	<b>57</b>	<b>22.53</b>
	\$25,000 - \$29,999	45	17.79
	\$30,000 - \$34,999	30	11.86
	\$35,000 - \$39,999	10	7.51
	\$40,000 - \$49,999	19	17.00
	\$50,000 - \$59,999	43	9.49
	\$60,000 - \$84,999	24	9.88
	Over \$85,000	25	9.88
<b>TOTAL</b>		<b>253</b>	<b>100%</b>

## 10.4. APPENDIX D – PATH DIAGRAM

2



<sup>2</sup> The figure that displays the path diagram/arrow scheme regarding the standard PLS algorithm may have slightly different values than those indicated earlier in the tables. This variation is due to the standard error predicted on each run.

