Antecedents of Green Purchase Intention - The Case of Personal Luxury Goods

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Abstract

This Master thesis aims to explore the predictors of Green Purchase Intention (GPI) in the specific context of the luxury industry. The study builds on Ajzen's (1991) Theory of Planned Behavior and additionally investigates whether specific psychographic characteristics are related to luxury consumers' likelihood to purchase green personal luxury goods. Hereby, the luxury category of fashion and leather goods exemplify the focal element of this research. Hypotheses are tested by a quantitative methodology, whereby convenience sampling is applied to gather luxury consumer data via an online survey distribution. The employed data analysis methods consist of Pearson Correlational and Hierarchical Multiple Regression analyses.

The results have demonstrated that a reduced version of the Theory of Planned Behavior (TPB), excluding the original variable Perceived Behavioral Control, is appropriate to predict the GPI of green personal luxury goods. In addition to the TPB variables' Attitude and Subjective Norm, the psychographic factors of Altruism and Environmental Knowledge were found to be correlated with luxury consumers' GPI in the context of this study and complete the theoretical framework.

Keywords: Consumer Behavior, Green Purchase Intention, Green Luxury, Sustainable Consumption, Theory of Planned Behavior

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Resumo

Esta tese de mestrado tem como objectivo explorar os preditores da Intenção de Compra Verde no contexto específico da indústria do luxo. O estudo baseia-se na Teoria do Comportamento Planeado de Ajzen (1991) e investiga se características psicográficas específicas do consumidor influenciam a probabilidade dos consumidores de luxo comprarem bens de luxo pessoais ecológicos. Neste contexto, a categoria de luxo da moda e dos artigos de couro exemplifica o elemento central desta investigação. As hipóteses são testadas através de uma metodologia quantitativa, em que a amostragem de conveniência é utilizada para recolher dados de consumidores de luxo através da distribuição de um inquérito online. Os métodos de análise de dados utilizados consistiram numa análise de regressão múltipla hierárquica e correlacional.

Os resultados mostraram que uma versão reduzida da Teoria do Comportamento Planeado pode ser utilizada para prever a Intenção de Compra Verde (IPV) de bens de luxo pessoais verdes, excluindo a variável original Controlo Comportamental Apercebido. Além disso, verificou-se que os factores psicográficos Altruísmo e Conhecimento Ambiental estavam correlacionados com a IPV dos consumidores de luxo no contexto deste estudo.

Palavras Chave: Comportamento do consumidor, Intenção de compra ecológica, Luxo ecológico, Consumo sustentável, Teoria do comportamento planeado

Titre : Antécédents de l'intention d'achat écologique - Le cas des produits de luxe personnels

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1. Introduction

1.1. Problem Definition and Relevance

288 billion Euros – according to a recent publication by renowned strategic consultancy Bain & Company (2022), this number represented the global value of the personal luxury goods market in 2021. In fact, the consultancy's estimations forecast a striking increase to 360 to 380 billion Euros by 2025. Evidently, the luxury industry is of significant relevance to the global economy, explaining the substantial academic attention it has been receiving.

Despite the luxury industry's seemingly exponential success, the flourishing industry is not free of obstacles. Worldwide challenges such as global warming and rising social inequality have put the sector under the spotlight regarding sustainability claims. Accordingly, major players such as Stella McCartney and Tiffany & Co. have taken action and are leading the industry toward a more sustainable future. The use of vegan leather alternatives (Stella McCartney, 2022) or modern blockchain technology to enable diamond traceability along the supply chain (Tiffany & Co., 2022) are examples of these brands' innovative journey toward sustainability.

Yet, the luxury industry has been less aggressive in communicating an environmental shift to consumers. While companies across sectors, including fast fashion, vastly promote their sustainable actions and ambitions, for example, H&M's Conscious Collection (H&M, 2023), luxury houses have appeared somewhat reluctant to offer explicitly ethical products in the past (Davies et al., 2012). This might be a consequence of the luxury sector's particular nature and customer profiles that cannot be equated with the masses. In fact, academic research has questioned whether sustainability is even considered a relevant factor in the luxury consumer's purchase process. For example, prior studies have evidenced that ethical factors have so far struggled to overtake traditional purchase drivers such as prestige in the luxury decision-making process (e.g., Achabou & Dekhili, 2013; Davies et al., 2012).

Nonetheless, the increasing public acknowledgment of modern consumption patterns' unarguable role in our environment's continuous decay (Chen & Chai, 2010) poses a reputational threat to luxury brands (Kapferer, 2014). Moreover, the associated rise of sustainability-related criticism toward the luxury sector, for example, regarding some labels'

controversial use of furs or exotic animal skins, highlights the importance of luxury brands' active participation in the green movement. Thus, there is a considerable need to unveil the factors that do drive green consumption behavior for luxury consumers, to help luxury houses bring their sustainable products to the market successfully.

While considerable research has been conducted around luxury and sustainability, the field lacks abundant research about Green Purchase Intention (GPI), especially within the personal luxury goods industry. Thus, this study aims to contribute to the theoretic domain of sustainable consumption by merging the concepts of sustainability and luxury in unveiling factors that determine GPI in the personal luxury goods market. Hereby, green luxury fashion and leather goods are chosen as this study's focal point as, to the researcher's knowledge, this relevant product category has yet to be empirically explored from this angle.

1.2. Research Question

To identify the relevant influential factors of GPI for personal luxury products, this research builds on constructs of the Theory of Planned Behavior (TPB) proposed by Ajzen (1991), which has been a widely applied framework in the research domain of green purchase behavior (e.g., Zaremohzzabieh et al., 2021; Sreen et al., 2018). More specifically, this paper considers the TPB variables Attitude, as several studies have declared it the most relevant predictor of GPI (Narayanan et al., 2020; Wang et al., 2019; Paul et al., 2016; Zakersalehi & Zakersalehi, 2012; Zhou et al., 2013), Subjective Norm, and Perceived Behavioral Control (PBC). Furthermore, the impact of psychographic variables of Environmental Concern (EC), Perceived Consumer Effectiveness (PCE), Altruism, and Environmental Knowledge (EK) are explored. Conclusively, this dissertation intends to study the following research question:

RQ: "What factors are related to Green Purchase Intention (GPI)? The case of the personal luxury goods market."

1.3. Thesis Structure

To approach the research problem at stake, the following paper will first thoroughly review prior literature on the concepts of sustainability and luxury. Furthermore, existing studies on the respective effects of the TPB and psychographic variables on sustainable purchase practices will be explored. Subsequently, this Literature Review will lead to the formulation of several

hypotheses and a proposed research model within the Theoretical Framework and Hypothesis Development section. Hereafter, the Methodology and Data Collection chapter will outline and justify the chosen quantitative research approach, explain the sampling procedure, research design, instrument development based on prior research, and data analysis methods. Then, the empirical analysis will be presented in the Results, followed by a Theoretical Discussion. Lastly, the findings will be utilized to formulate both Theoretical Contributions and Managerial Implications in addition to providing this study's Limitations and Suggestions for Future Research in the Conclusion chapter.

2. Literature Review

2.1. The Concept of Sustainability

2.1.1. Defining Sustainability

The World Commission on Environment and Development, WCED (1987, p. 15), has declared development sustainable when "it meets the needs of the present without compromising the ability of future generations to meet their own needs." More specifically, in their paper on global sustainability, Brown et al. (1987) have mentioned three essential and interconnected views of sustainability: the ecological, the economic, and the social. Hence, the definition of sustainability is context dependent. While several definitions of the term sustainability have been proposed among scholars, this threefold approach to sustainability exemplifies a common denominator in prior research (e.g., Hansmann et al., 2012; Purvis et al., 2019; Schoolman et al., 2012; Vos, 2007). While the environmental component has formed the initial focus of sustainability, today, the three dimensions stand in a "reciprocal relationship" (Vos, 2007, p. 335).

Furthermore, the three pillars of sustainability are reflected in the 17 Sustainable Development Goals (SDGs), which are a relevant part of the United Nation's 2030 Agenda for Sustainable Development (Purvis et al., 2019; United Nations, 2015). For example, SDG number four, "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all," touches upon the social pillar. In contrast, the ninth SDG, "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation," relates to the economic component, and goal 13, "Take urgent action to combat climate change and its impacts," addresses the ecologic perspective (United Nations, 2015).

2.1.2. Sustainable Consumption

Environmental ethics has increasingly caught the attention of both businesses and consumers (Yadav & Pathak, 2017), whereby the environment's severe decay has fueled the emergence of green or ethical consumerism. For several years the general concept of sustainable consumption has formed a popular research field among academics (e.g., Akhtar et al., 2021; Boström & Klintman, 2008; Moisander, 2007; Schuitema & De Groot, 2015; Yadav & Pathak, 2017).

The relevant role of consumption and its consequences regarding sustainable development has become more and more acknowledged and there appears to be a general agreement that consumption and lifestyle choices affect both the social and ecological pillars of sustainability and overall well-being (Jackson, 2014). Accordingly, research has shown that consumers increasingly display their efforts toward protecting the environment through their purchase preferences (Sharma et al., 2022; Zhang & Dong, 2020). Only recently, DHL (2022) has claimed that green consumerism exemplifies one of the world's most prominent trends, with a growing number of consumers seeking to transform their lifestyles towards sustainability and support eco-conscious brands through sustainable purchases. Moving beyond the consumer and academic scope, the concept of sustainable consumption as an enabler of sustainable development has also entered political agendas. But despite policymakers' awareness of the planet's prevailing environmental crisis, a substantial improvement is not yet observable. In fact, Staniškis (2012) has noted that global consumption patterns exceed the environment's regeneration ability by 30 percent.

In close relation to the United Nation's definition of sustainability, the United Nations Environment Programme (UNEP) has defined sustainable consumption as "the use of services and related products which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life-cycle so as not to jeopardize the needs of future generations" (Institute for Global Environmental Strategies, 2010, p. 15). Furthermore, the Oxford Commission on Sustainable Consumption (2000) has added that sustainable consumption aims to avoid the permanent destruction of the ecosystem.

It is worthwhile noting that the UNEP (1999) has argued that the concept of sustainable consumption does not imply a sacrifice of life quality and is not necessarily aimed at the limitation of consumption and production but rather at the adaption of consumption patterns towards efficiency. The emphasis on sustainable consumption not resulting in decreased living standards can be explained by modern society's perception of consumption as a synonym for quality of life (Staniškis, 2012). On the other hand, Kostadinova (2016) has contended that sustainable consumption cannot solely be limited to an adaption of consumption patterns but, indeed, does encompass a quantitative constraint in consumption.

Considering the various interpretations and facets of sustainable consumption, there appears to be confusion about an exact definition. Nevertheless, sustainable consumption embodies a broad concept that addresses multiple dimensions ranging from waste reduction to an improvement of the quality of life. Together these dimensions aim at maintaining or improving current services for today's and tomorrow's generations while simultaneously minimizing harm to both humans and the environment (United Nations Environment Programme, 1999).

2.1.3. Sustainable Marketing

While modern consumption habits contribute to strong economic growth, they also are responsible for substantial environmental harm. Actually, prevalent consumption patterns have been declared the "main cause of environmental deterioration" by Chen & Chai (2010, p. 177). The deterioration of global ecosystems has increasingly caught society's attention and has sparked a green movement (Chen & Chai, 2010). Marketeers' reaction to such climbing environmental awareness is green marketing. This eco-aware approach to marketing exemplifies one of modern businesses' key trends and accordingly demonstrates a frequently addressed topic in the academic community (e.g., Chan & Chai, 2010; Kassaye, 2001; McDaniel & Rylander, 1993; Pujari & Wright, 1996).

Scholars have made several attempts at defining green marketing so far. For example, in 2003, Peattie and Charter have referred to green marketing as a holistic management process that includes identifying, anticipating, and satisfying consumer needs while addressing sustainability and profitability. Moreover, Akehurst et al. (2012) have pointed out that green marketing touches upon several stages of a company's value chain beyond the manufacturing process, including the stages of design, R&D, packaging, and advertising. Thus, it can be described as a multifaceted concept. Finally, Soonthonsmai (2007) has highlighted that companies can reach both customer and societal satisfaction by developing eco-friendly goods and services. Thus, in response to consumers' growing sustainability needs and demand, green marketing arguably exemplifies a practical and valid choice for companies from a business perspective.

2.1.4. Green Products

Transitioning to the consumer perspective and their rising environmental concerns, green purchasing has become increasingly relevant. Hereby, such green purchases refer to the

purchase of green goods. Overall, it entails purchasing ecological products, also commonly referred to as 'green', that have less of a negative effect on the environment and can be described as eco-friendly (Chen & Chai, 2010; Lasuin & Ng, 2014; Kawitkar, 2013). Kawitkar (2013) has added that a green product is, by definition, one that does not contribute negatively to the well-being of a healthy person. Furthermore, Ottman (1998) has referred to green products as those characterized by durability, minimal packaging, non-toxicity, or recycled supplies. However, he has also noted that the term 'green' must be treated with caution. Negative consequences, such as emissions, energy consumption, transportation, and disposal, are associated with nearly all products, even those marketed as 'green.' Thus, it can be concluded that such green products are not necessarily explicitly beneficial for the environment but matter-of-factly not as harmful as alternative products.

Given the abundance of existing definitions of green products, Durif et al. (2010) have reviewed a total of 35 academic definitions and have summarized them as follows: "A green product is a product whose design and/or attributes (and/or production and/or strategy) uses recycling (renewable/toxic-free/biodegradable) resources and which improves environmental impact or reduces environmental toxic damage throughout its entire life cycle" (p.31). As will be explained in the section 4.3. 'Research Design', Durif et al.'s (2010) definition is utilized in this research to explain the concept to the study's participants.

According to numerous research, consumers of green products can be characterized by socio-demographic variables, ranging from gender (e.g., Banerjee & McKeage, 1994; Roberts, 1995; Roberts & Bacon, 1997; Sandahl & Robertson, 1989; Stern et al., 1993; Straughan & Roberts, 1999; Van Liere & Dunlap, 1980), age (e.g., Kinnear et al., 1974; Straughan & Roberts, 1999; Sandahl & Robertson, 1989) to income (e.g., Anderson & Cunningham, 1972; Awad, 2011; Kassarjian, 1971; Kinnear et al., 1974; Roberts, 1996; Roberts & Bacon, 1997; Sandahl & Robertson, 1989; Zimmer et al., 1994;). However, Akehurst (2012) has stated that the resulting relationships between these variables and green consumerism lack consistency.

Age. Regarding socio-demographic factors, age has been a frequently studied variable in green marketing research as a determinant of green consumerism (e.g., Anderson & Cunningham, 1972; Barber et al., 2010; Hume et al., 1989; Kinnear et al., 1974; Leonard-Barton, 1981; Roberts & Bacon, 1997; Straughan & Roberts, 1999; Van Liere & Dunlap, 1980; Zimmer et

al., 1994). Particular distinctions can be made across the different generational cohorts, such as baby boomers or millennials. However, research findings are not coherent regarding the relationship between age and individuals' attitudes toward the environment (Barber et al., 2010). On the one hand, Wiernik et al. (2013) have conducted a meta-analysis on the relationship between age and sustainability, revealing that older people are more invested in natural resource conservation, nature engagement, and avoidance of environmental harm. On the other hand, McKinsey & Company (2020) have stated that especially millennials (people born after 1980) and Generation Z (people born after 1996) have a higher willingness to pay for sustainable fashion. Results by Bedard and Tolmie (2018) also have shown that social media usage is positively correlated with GPI. As younger people are more active on social media channels, this again implies a negative relation between age and sustainability.

Given the findings that millennials are expected to make up 45% of luxury consumers by 2025 (Zollo et al., 2020; D'Arpizio et al., 2017), luxury marketers must consider these age groups' increasing environmental needs. Kapferer and Michaut (2015) also have highlighted that younger luxury consumers tend to perceive a more decisive contradiction between the luxury sector and sustainability. This is a relevant realization given young people's heightening presence in the luxury industry (Kapferer & Michaut, 2015).

Gender. Several scholars have found gender to be a further relevant variable in terms of demographics and environmental segmentation (e.g., Barber et al., 2010; MacDonald & Hara, 1994; Roberts & Bacon, 1997; Samdahl & Robertson, 1989; Stern et al.,1993; Van Liere & Dunlap, 1980). According to Straughan and Roberts (1999) prior research findings have suggested that the female sex is more likely to act in line with the green movement than their male counterparts. According to Stern et al. (1993), women generally display higher levels of environmental concern and favor eco-conscious products more than men (Arcury et al., 1987; Lee, 2009; Schahn & Holzer, 1990). A study by Banerjee and McKeage (1994) also has shown that women score higher on environmentalism than men. Gender differences in environmental behavior have been related to gender socialization theory, which suggests that the different socialization and education of boys and girls as children affect their social values and expectations (Freudenberg & Davidson, 2007; Greenbaum, 1995).

2.2. The Luxury Industry

2.2.1. Defining Luxury

A plethora of prior research has intended to define and characterize the term luxury. However, inconsistencies among the various attempts may be explained by the notion of luxury not being static but instead dynamic and continuously evolving. The constantly developing, or arguably unstable, nature of luxury has made it challenging for researchers to agree on a single lasting correct definition (Heine, 2012; Kapferer, 2008).

However, according to Heine (2012), there are specific luxury attributes that scholars can agree on. For example, there has been a seeming consensus that luxury exceeds necessity, wherefore the author has defined luxury as "anything that is desirable and more than necessary and ordinary" (p. 42). This definition is aligned with the common comparison of luxury and dreams (e.g., Amatulli et al., 2018; Dubois & Paternault, 1995; Heine, 2012; Kapferer, 2008; Seringhaus, 2002). Thus, according to the Hierarchy of Needs introduced by Maslow (1943), luxury purchases nurture humans' need for self-actualization (Ward & Chiari, 2008). However, it must be noted that luxury and the associated understanding of necessity and ordinariness are relative and depend on the regional, temporal, economic, cultural, individual, and situational context. What is declared as ordinary in one region or culture might be luxurious in another (Heine, 2012), again highlighting the fluid nature of luxury. Examples of such context-dependent interpretations of luxury may be found below in Table 1.

Example of Non-Luxury	Type of Relativity	Explanation
Clean air	Regional relativity	A luxury in Jakarta, but not from the perspective of most people
Color TV	Temporal relativity	A luxury in the 1950's, but not from today's perspective
VW Polo	Economic relativity	A luxury for a student, but not from a gross-societal perspective
Gold teeth grill	Cultural relativity	A luxury in the hip-hop scene, but not from the perspective of the upper class
McDonald's Hamburger	Situational relativity	Might be a luxury after a strict diet, but not under normal circumstances

Table 1 - Examples of Non-Luxury Items (Heine, 2012)

Kapferer and Bastien (2012) further have highlighted that the luxury strategy strictly differentiates itself from the fashion or premium strategy. More specifically, a premium product or service is characterized by functionality and value, while luxury focuses on intangible values (Kapferer, 2017), hedonism, as well as multisensory and experiential meaning (Heine, 2012; Kapferer & Bastien, 2017). Regarding the fashion sector, the leading point of differentiation from the luxury sector is fashion's fast pace compared to the timeless nature of luxury (Kapferer & Bastien, 2017).

Furthermore, luxury exemplifies a microeconomic sector heavily dominated by large publicly listed luxury conglomerates such as Kering, Richemont, or LVMH (Kapferer & Bastien, 2012). For example, the French luxury goods multinational corporation LVHM, Moët Hennessy Louis Vuitton, entails 75 luxury brands such as Louis Vuitton, Fendi, and Dior across diverse categories, including 'Wines & Spirits', 'Fashion & Leather Goods', 'Perfumes & Cosmetics', and 'Watches & Jewelry' (LVMH, 2022). As previously mentioned, fashion and leather goods represent the focus of this study and the associated survey.

2.2.2. Luxury Characteristics

Besides high prices, the luxury sector differentiates itself through various characteristics such as quality, aesthetics, extraordiness, symbolism, and rarity (Heine, 2012). Dubois et al. (2001) have added the factors of ancestral heritage and superfluousness to the equation. Sjostrom et al. (2016) have further found that premium quality, brand authenticity, and trustworthiness, as well as good brand reputation and status, are strongly associated with the luxury sector. Given its unique characteristics and strong differentiation from other sectors, the luxury business model also contradicts traditional marketing concepts. An example of this can be demonstrated by the unique positive correlation between price and demand, which is typical for luxury brands and products (Kapferer & Bastien, 2012).

2.2.3. Current Challenges

According to Keller (2009), luxury brand managers are confronted with significant tradeoffs. Firstly, they face a tradeoff between exclusivity and accessibility. The former implies a perception of uniqueness and exception, while the latter enables growth and profitability. Secondly, they must find the right balance between a contemporary and classic image to appeal to the younger generation and more traditional customers. Hence, luxury marketers are

challenged to appropriately balance resource allocation in terms of new customer acquisition and existing client retention. Furthermore, Kapferer (2014) has highlighted the heightening criticism against luxury brands regarding sustainability matters as a potential threat to the luxury sector. Respectively, Franco et al. (2019) have denoted that the perceived lack of necessity of luxury goods to daily life further elevates luxury brands' susceptibility to sustainability-related criticism. Lastly, given the growing demand for luxury and its historical reliance on rare materials and fabrics (e.g., alligator skins), Kapferer (2014) has pointed out potential difficulties in obtaining large quantities of such scarce supplies. Ultimately, he calls attention to luxury companies' need to respect social and environmental needs while maintaining sustainable growth (Kapferer, 2014).

2.2.4. Compatibility of Luxury and Sustainability

For a long time, the luxury sector has been somewhat spared of environmental scrutiny due to its comparably small size and resulting limited environmental consequences in absolute terms (Kapferer & Bastien, 2012). However, with the increasingly significant role of sustainability, a heated debate has risen in the luxury research arena whether luxury and sustainability are compatible. Likewise, consumers' perceptions of the luxury industry under the sustainability lens deviate substantially.

On the one hand, researchers have reported that consumers do not associate luxury with sustainability but rather with unethical and excessive consumption behaviors and exclusivity (Kapferer & Michaut-Denizeau, 2020; Moraes et al., 2017) in addition to "overproduction, indulgence, and personal pleasure" (Athwal et al., 2019, p. 407). Moreover, findings by Kapferer and Michaut (2015) have noted the frequent association of luxury and social inequality as well as the accusation of the luxury industry's promotion of spending beyond one's means. On the other hand, luxury products are characterized by durability and timelessness, typically equipping them with a longer product life than the mass-market alternatives (Guercini & Ranfagni, 2013; Sun et al., 2021; Venkatesh et al., 2010). For example, luxury watchmaker Patek Philippe specifically emphasizes that their watches are intended to be passed on from generation to generation (Kapferer & Bastien, 2012). In addition, the factor of rarity (Kapferer, 2015; Guercini & Ranfagni, 2013) and high prices limit consumption to a certain extent, according to Carranza et al. (2022). Conclusively, a review of existing literature reveals a need for clarity about the relationship and compatibility of luxury and sustainability.

2.2.5. Examples of Sustainable Business Practices in the Luxury Industry

Nonetheless, more and more luxury players have taken sustainable actions in reaction to rising sustainability concerns across the value chain, considering both branding and product processes (Franco et al., 2019). For example, vertical integration, traceability, and the reduction of CO2 emissions are on the sustainability agenda for many luxury houses (Girod, 2021; Carranza et al., 2022). Furthermore, Franco et al. (2019) have identified several social, environmental, and economic best practices. Regarding the social aspect, they have advocated for appropriate work conditions, gender equality, employee well-being, and humanitarian and philanthropic actions. Along the environmental dimension, they have suggested vertical integration, the use of environmentally friendly materials, innovation through raw and vegan supplies, and working with lab-grown stones and materials. Finally, an extension of the product life cycle and consideration of circular economy models such as renting or second-hand can contribute to the economic side (Franco et al., 2019).

A prime example of sustainable luxury is the luxury label Stella McCartney. As an industry pioneer in terms of eco-consciousness and social responsibility, the Stella McCartney brand invests in innovative non-animal materials. One of them is MIRUM®, a new non-animal leather alternative that is free of plastics, water, and fossil fuels. In collaboration with Bolt Threads, Stella McCartney created another cruelty-free leather alternative, Mylo™, derived from mushrooms (Stella McCartney, 2022). This new material enabled the brand to develop luxury's first mycelium-made handbag, the Frayme Mylo™, which is depicted in image 1.

Figure 1 - The Frayme Mylo™ (Stella McCartney, 2022)

2.2.6. The Consideration of Ethics in the Luxury Consumption Process

Despite success stories such as the Stella McCartney brand, academia exhibits inconclusive and rather limited support for the customer-sided demand and appreciation for such sustainable options in luxury goods. Initially, research regarding consumers' attitudes and purchase behaviors towards sustainability and their consideration of environmental issues has mainly been conducted in the fast-moving consumer goods (FMCG) sector. Kapferer and Bastien (2012) have explained the research agenda's strong focus on FMCG products due to this market's substantial negative contribution to environmental harm in terms of resource and climate destruction. Given the mounting gravity of sustainability across sectors and industries, the luxury market is progressively catching researchers' interest.

Research conducted by Davies et al. (2012) has investigated to what degree consumers care about ethics in the consumption of luxury goods in comparison to commodities. Given academia's prior attention to ethical consumption regarding low-value goods, their study has extended the research perspective to luxury consumption patterns and the role of ethics within it. Based on structured interviews, their findings have concluded that ethical production conditions play a significantly lower role when customers purchased luxury goods compared to commodities. Respondents indicate that ethical production is the least important from a list of eight different buying criteria, while traditional luxury attributes such as prestige or self-image have a higher priority in luxury purchases (Davies et al., 2012). Achabou and Dekhili (2013) have confirmed that a luxury brand's approach towards sustainable responsibility is not a priority in consumers' decision-making process, whereas intrinsic quality is of crucial relevance. Kapferer and Michaut (2015) also have discovered that sustainability concerns are not essential to luxury consumers' purchase decisions.

More specifically, Davies et al. (2012) have found ethics to be less developed in luxury than in commodity purchasing processes for the following reasons: Quality–Price Differential, Lack of Information, Regularity of Purchases, Lack of Availability, and the underlying perception that luxury cannot make a difference. Regarding the first reason, Quality-Price Differential, it should be noted that interviewees assume ethical luxury to be correlated to high price increases compared to the non-ethical counterpart. Also, it becomes apparent that consumers lack relevant information about ethical luxury and are better informed when it comes to commodities. Furthermore, given that most people purchase luxury products far less frequently

than commodities, the effort to inform themselves about ethical luxury is not perceived to be worthwhile. Similarly, respondents feel that the extent of a difference they could make through ethical purchases is greater for commodities than luxury, suggesting that people do not expect or associate factors such as exploitation with the luxury goods industry.

These findings are further supported by Achabou and Dekhili (2013) in an empirical study investigating the recycled cotton use in luxury products. Their findings have revealed that using recycled material in a Hermes t-shirt harms customer preferences. While luxury consumers do not feel that recycling poses a health risk or is associated with lower quality and believe in its positive environmental effects, they nonetheless have a negative perception of the use of recycled materials in luxury clothing. Thus, the researchers have concluded that recycling is contradictory to luxury. Furthermore, their results have confirmed that factors such as quality or brand reputation are more relevant in the selection criteria for luxury purchases than environmental commitment.

On the contrary, the World Wildlife Foundation has described the rise of a 'New Luxury Consumer', who is truly knowledgeable about sustainability in terms of environmental and social concerns. Their report has even claimed that luxury consumers worldwide hope to see an increasing alignment of luxury brands and their own sustainable ambitions (Bendell and Kleanthous 2007).

Also, a so-called 'Fallacy of Clean Luxury' has been declared by Davies et al. (2012), which is based on findings that consumers fall into the common assumption that luxury goods are ethical simply on behalf of their high prices. Similarly, Kernstock et al. (2017) have highlighted consumers' expectations of exceptionally high levels of sustainability in manufacturing processes and supplies. Further support has been found in a survey conducted by Kapferer and Michaut (2015) about attitudes toward luxury and sustainability, which revealed that 69 percent of respondents expect luxury brands to comply with sustainability given the high price. Thus, some consumers appear to perceive ethical compliance to be a given for highly priced luxury items, without deeply questioning in.

Based on the above finding, it can be concluded that while consumers might not declare sustainability a top priority in their decision-making process for luxury purchases, there is an

underlying assumption and expectation that luxury brands act sustainably and ethically. Furthermore, it is noteworthy that the author's Davies et al. (2012) have estimated that the luxury sector is 15 years behind the commodity sector in terms of the product life cycle and anticipate a rise in the role of ethics in luxury purchases given "persistence, a clear message, and availability" (p. 48).

2.3. Green Purchase Intention

2.3.1. Defining Green Purchase Intention

A further concept closely linked to the green movement and sustainable consumption is Green Purchase Intention (GPI), which serves as the dependent variable of this research study. It has been included in several prior works (e.g., Akehurst et al., 2012; Huang et al., 2015; Lasuin & Ng, 2014; Sreen et al., 2018; Wang et al., 2020; Zaremohzzabieh et al., 2021). In a paper titled 'Effects of green brand on green purchase intention' authors Huang et al. (2014) have defined the construct GPI as "a consumer's desire to purchase the product after they are aware it is a green product or green brand" (p.257). Hereby, they have built on prior research by Chen and Chang (2012), Oliver and Lee (2010), and Zeithaml (1988). Furthermore, Lasuin and Ng (2014) have referred to GPI as "the willingness of an individual to consider and prefer the green product rather than conventional or traditional product in the decision-making process" (p. 3). Overall, GPI exemplifies a relevant variable in the green marketing area as research supports its positive correlation with actual green purchase behavior (GPB) (e.g., Chan, 2001; Paul et al., 2016; Rezai et al., 2012; Teng et al., 2011).

According to Ajzen (1991), intentions predict an individual's likeliness to act in a certain way in consideration of the motivational factors impacting his or her behavior. Overall, the scholar has found empirical support for the correlation of intention and the execution of a specific behavior. Thus, GPI is likely to influence the actual probability of a customer's green purchase decision. Welsch and Kühling (2009) have argued that knowing the antecedents of eco-friendly consumption can decrease some of the hurdles green consumption is facing today and accelerate the adoption of sustainable products.

2.3.2. Green Purchase Intention in the Luxury Sector

While much prior research has explored factors influencing green consumerism, Liobikiene and Bernatoniene (2017) have criticized that the majority takes on a comprehensive and general

view of green product purchases. Conclusively, they have suggested further independent investigation of various product groups. While determinants of GPI have been studied across some specific product groups and industries, to the researcher's knowledge, there has been limited large-scale research conducted within the field of personal luxury goods, especially within the sub-category of luxury fashion and leather goods. For instance, prior studies have investigated consumers' purchase intentions for natural cosmetics (Matić & Puh, 2016) as well as factors affecting buying luxury organic beauty products (Lavuri et al., 2022). Furthermore, motivators for purchasing a green luxury car have been analyzed (Ali et al., 2019; Aliyev et al., 2019). This study's investigation of the personal luxury goods category taps into a currently under-researched field.

Lavuri et al. (2022) have suggested that future research should investigate various factors, ranging from Altruism to socio-economic drivers, affecting the purchase intention for various sustainable luxury products. This further underlines the relevance of this research. Also, given prior research findings that consumers pay less attention to ethics regarding luxury purchases (Davies et al., 2012), it would be valuable to empirically identify the factors that affect customers' GPI for personal luxury goods. Overall, further insights on determinants of GPI in this category could provide implications for more effective marketing strategies.

2.4. Determinants of Green Purchase Intention (GPI)

2.4.1. Determinants of GPI according to the Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB), proposed by Ajzen (1991), has been frequently used to predict human behaviors across various research fields, including research on green purchase behavior and GPI (e.g., Ko & Jin, 2017; Yadav & Pathak, 2017; Gil & Jacob, 2018).

More specifically, the framework consists of three empirically proven and conceptually independent dimensions that influence human behavioral intentions: an individual's belief about the possible results of his or her behavior (behavioral beliefs), about other people's perception of their behavior (normative beliefs), and of factors that affect the ease of executing a behavior (control beliefs). Respectively these three beliefs lead to an Attitude towards a behavior (positive or negative), Subjective Norms (SN), and Perceived Behavioral Control (PBC), which together can result in a person's intention to behave a certain way and finally execute that behavior (Ajzen, 1991; Bautista et al., 2020). Ajzen (1991) has highlighted that

the relative predictive strength of intention can differ for the three respective dimensions and depends on situational and behavioral context.

Overall, prior research indicates the TPB variables to have a solid and reliable predictive power of social behavior (Hsu et al., 2017) and purchase intentions (e.g., Chen & Tung, 2014; Hsu et al., 2017; Salem & Chaichi, 2018). Hereby, TPB has been explored separately in both the contexts of sustainability (e.g., Hasan & Suciarto, 2020; Hsu et al., 2017; Ko & Jin, 2017; Zhang et al., 2018) and luxury (e.g., Jain & Khan; 2017; Ling, 2009; Loureiro & Araujo, 2013; Salem & Chaichi, 2018), but limited research has investigated TPB in the joint concept of sustainable luxury. The TPB, which is the basis of this study's theoretical framework, may be found below in Figure 2.

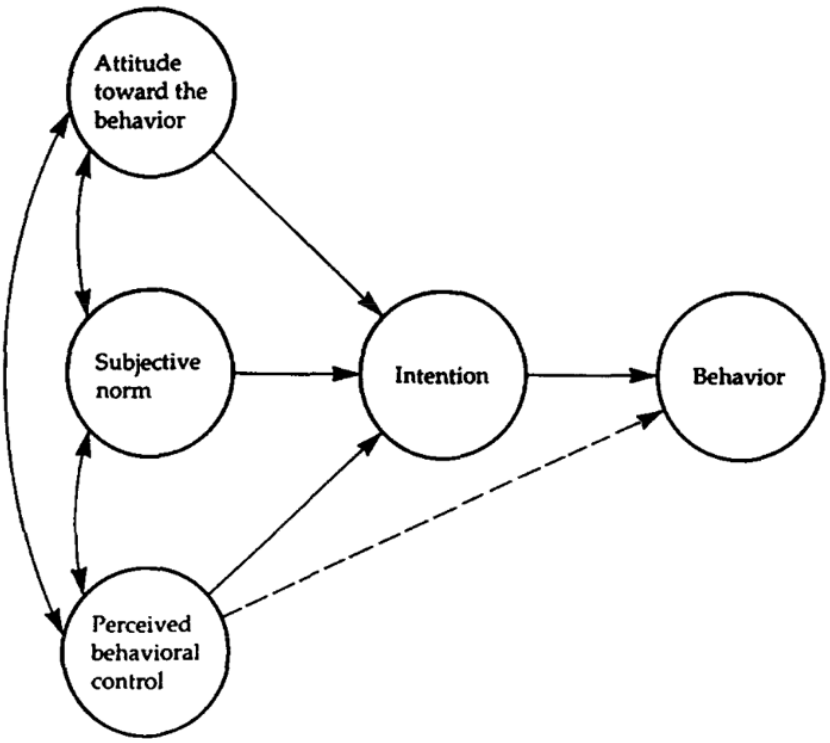

Figure 2 - Theory of Planned Behavior (Ajzen, 1991)

2.4.1.1. Attitude and GPI

The first predictor of intention proposed by Ajzen (1991) is Attitude toward the behavior, which has been defined as the "degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question" (p. 188). Prior studies have revealed that

Attitude can increase the purchase intention regarding sustainable behavior (e.g., Ko & Jin, 2017; Zhang et al., 2018; Hasan & Suciarto, 2020; Hsu et al., 2017). For example, in their study regarding predictors of purchase intention for green apparel items, Ko and Jin (2017) have found statistical support for the positive correlation between Attitude and intention. Also, consumers' Attitude toward behavior was the second strongest predictor of consumers' purchase intention regarding green housing in Zhang et al.'s (2018) study. In terms of purchase intention for luxury fashion, several research has been able to confirm that Attitude is a significant antecedent (e.g., Salem & Chaichi, 2018; Jain & Khan, 2017). Given prior literature's inconsistencies regarding the perception of sustainability in the context of luxury, a further investigation of this matter could help shed light on the debate.

2.4.1.2. Subjective Norm (SN) and GPI

Furthermore, Ajzen's (1991) TPB framework includes Subjective Norm (SN) as an antecedent of intention. This social element acknowledges "the perceived social pressure to perform or not to perform the behavior" (p. 188). Ko and Jin (2017) have argued that within the environmental research domain, SN is found to be an especially relevant construct in explaining individuals' intention toward sustainable behaviors (e.g., Zhang et al., 2018). Given the generally positive social and ethical associations with sustainably compliant actions, the perceived social pressure to behave in an eco-conscious way increases (Ko & Jin, 2017). For example, Shimul et al. (2022) have found SN to be significantly positively correlated for female shoppers with their purchase intention for green cosmetics in the South African market. Also, Jain and Khan (2017) have discovered that SN is positively related to purchase intention for luxury fashion items in India. Salem and Chachi (2018) have confirmed these results. Thus, it would be interesting to reveal whether personal luxury consumers' perception of social pressure to purchase sustainable luxury items is sufficient to affect their GPI significantly.

2.4.1.3. Perceived Behavioral Control (PBC) and GPI

The TPB's final component is Perceived Behavioral Control (PBC), which entails "the perceived ease or difficulty of performing the behavior, and it is assumed to reflect past experience as well as anticipated impediments and obstacles" (Ajzen, 1991, p. 188). Several scholars within the green research area have found PBC to be a predictor of GPI and behavior. Hasan and Suciarto (2020), for example, have identified PBC to be significantly positively correlated with consumers' purchase intention regarding organic food. Hsu et al. (2017) also

have found a significant relationship between PBC and consumer GPI within the skincare market. Research conducted by Jain (2020) has shown evidence of PBC being an influencer of purchase intention for luxury fashion purchase intention of Gen Y consumers in India, which supports earlier research by Ling (2009), who have declared the predictive power of PBC for Chinese luxury consumer's purchase intention of luxury fashion goods. Extending this to the sustainable luxury lens, it can be expected that the luxury consumers' perception of easy access and availability of green luxury fashion and leather goods similarly positively impacts GPI.

2.4.2. Psychographic Determinants of Green Purchase Intention

According to Akehurst (2012), the green consumer can be characterized by various factors, ranging from socio-demographics to economic aspects, whereby their study has confirmed prior findings that psychographic variables are more relevant in characterizing green consumer behavior (e.g., Kassarjian, 1971; Anderson & Cunningham, 1972; Banerjee & McKeage, 1994; Awad, 2011). Akehurst (2012) has found the psychographic variables Perceived Consumer Effectiveness (PCE) and Altruism to be significantly relevant in determining Ecologically Conscious Consumer Behavior (ECCB), which is significantly positively correlated with GPI. Furthermore, their results deny a relationship between Environmental Concern (EC) and ECCB, which they admit is somewhat surprising and suggest this result might not be precise due to low reliability. For example, Lasuin and Ng (2014) have identified a significant positive relationship between EC and GPI. Thus, the variable EC will be taken into further consideration within this study, in addition to PCE, Altruism, and Environmental Knowledge (EK).

2.4.2.1. Environmental Concern (EC) and GPI

EC can broadly be described as a person's attitude toward the environment and the degree to which environmental issues concern them, and their belief that humans are a danger to the environment (Franzen & Vogl, 2013; Fransson & Gärling, 1999; Li & Chen, 2018). According to several existing researchers, EC is a determinant of eco-friendly behavior. Several researchers have found evidence that consumers with serious EC are more likely to engage in environmentally friendly actions, such as purchasing green products (Kim & Choi, 2005; Ali & Ahmad, 2016; Straughan & Roberts, 1999). Studies conducted by Ali and Ahmad (2016) and Bhatt and Bhatt (2015) confirm the significant influence of EC on GPI.

Likewise, industry-specific studies have been conducted. For example, Hedlund (2011) has observed that EC increases consumers' intentions to purchase ecologically sustainable tourism alternatives. Similarly, Hartmann and Apaolaza-Ibáñez (2012) have found that high levels of EC also positively influence consumers' purchase intention regarding green-branded energy. More recently, Moshood et al. (2022) have demonstrated that EC influences consumers switching intention toward biodegradable plastics. Given the diversification of the luxury consumer, which nowadays also includes the environmentally conscious customer segment, pointed out by Wong and Dhanesh (2017), an investigation of EC levels and GPI could be an addition to prior research.

2.4.2.2. Perceived Consumer Effectiveness (PCE) and GPI

PCE refers to the "domain-specific belief that the efforts of an individual can make a difference in the solution to a problem" (Ellen et al., 1991, p. 103) and exemplifies a further important variable. More recently, Luvuri et al. (2022) have described PCE as the degree to which a consumer can considerably contribute to the decrease of pollution. Consumers with a high level of PCE believe that they can, as individuals, make an environmental difference through actions such as the purchase of green goods or recycling (Akehurst et al., 2012). Thompson et al. (1991) have concluded that an individual's behavior and intention are related to their belief that their actions can affect whether a particular situation will occur. In an extensive study titled 'The role of perceived consumer effectiveness in motivating environmentally conscious behaviors,' Ellen et al. (1991) have clarified that PCE, and EC are distinct variables. Thus, it makes sense to analyze both in the present study.

For example, Seligman et al. (1979) have demonstrated that energy usage is higher in households that believe the energy crisis is not a consequence of individuals and that individuals can not ease the situation. Webster (1975) also has discovered that PCE is related to individuals' environmental behavioral, such as the use of a recycling service or returnable bottles. Bhatt and Bhatt (2015) have also found a positive correlation between PCE and GPI. In their research about luxury organic beauty goods, Luvuri et al. (2022) have further confirmed a significant impact of PCE on purchase preferences. Considering that consumers with a high level of PCE are more accepting of green options in various product categories, exploring this relationship in the luxury fashion and leather goods industry can be beneficial.

2.4.2.3. Altruism and GPI

Akehurst et al. (2012) have defined Altruism as individuals' concern about society and other people's welfare. Their research confirms that Altruism plays a significant role in determining a consumer's eco-conscious behavior. This confirms earlier findings by Straughan and Robert's (1999), which have shown that Altruism exemplifies the second strongest predictor of ecologically conscious consumer behavior, again confirmed by Yarimoglu and Binboga (2019). Thus, they do suggest Altruism should be included in green consumer profiling. More recently, it has also been discovered that Altruism is a significant antecedent of green hotel patronage intention (Tan et al., 2020) and green hotel selection (Wang et al., 2020). Thus, it can be assumed that also altruistic luxury consumers are more inclined to GPI.

2.4.2.4. Environmental Knowledge (EK) and GPI

Fryxell and Lo (2003) have defined EK as people's "knowledge of facts, concepts, and relationships concerning the natural environment and its major ecosystems" (p. 48). Furthermore, it encompasses individuals understanding of responsibilities regarding sustainable development. In their study investigating determinants of Chinese managers' environmental actions, the researchers found EK to be a relevant predictor. Furthermore, the previously mentioned study on Pakistani consumers by Ali and Ahmad (2016) also suggests a significant positive relationship between environmental knowledge and GPI. Ajzen (1991) have also suggested that EK is relevant in evoking environmentally cautious attitudes and behaviors. Furthermore, Peattie (2010) has recognized several studies that declare knowledge about eco-related issues as a further relevant factor that can increase green purchase behavior among consumers.

Given the likelihood of consumers purchasing green products, if they are informed about the environment, Ali and Ahmad (2016) have explained that companies could leverage this by transforming eco-related problems and issues to a sales increase of their environmentally friendly products. However, so far, the effects of EK on GPI in the context of luxury remain to be explored.

3. Theoretical Framework and Hypotheses Development

An extensive review of prior literature on the specifics of the luxury industry and the topic of GPI has led to the realization that its possible predecessors are yet to be investigated within the context of personal luxury goods. Especially the section 2.4. 'Determinants of Green Purchase Intention' has led to the following hypotheses which will be explored within this study:

Hypothesis 1: There is a positive relationship between Attitude and GPI for personal luxury goods.

Hypothesis 2: There is a positive relationship between Subjective Norm (SN) and GPI for personal luxury goods.

Hypothesis 3: There is a positive relationship between Perceived Behavioral Control (PBC) and GPI for personal luxury goods.

Hypothesis 4: There is a positive relationship between Environmental Concern (EC) and GPI for personal luxury goods.

Hypothesis 5: There is positive relationship between Perceived Consumer Effectiveness (PCE) and GPI for personal luxury goods.

Hypothesis 6: There is a positive relationship between Altruism and GPI for personal luxury goods.

Hypothesis 7: There is a positive relationship between Environmental Knowledge (EK) and GPI for personal luxury goods.

The proposed theoretical framework visualizes the hypothesized relationships between this study's various independent variables and GPI for green personal luxury goods.

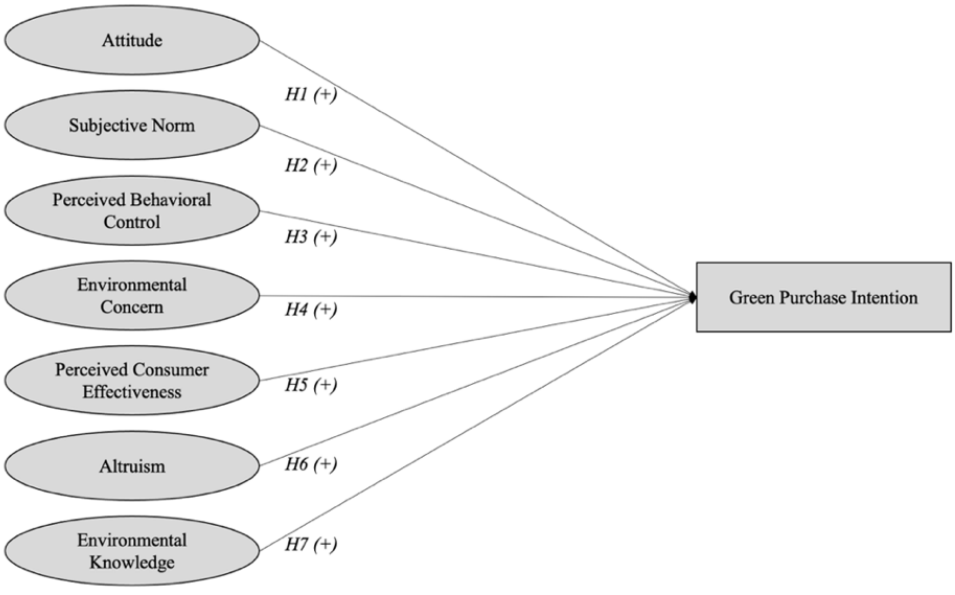

Figure 3 - Proposed Theoretical Model

4. Methodology and Data Collection

4.1. Research Method

This study adopts a quantitative approach to investigate the determinants of GPI in the context of the luxury industry. Initial secondary research, based on the review of prior literature, has led to the proposal of several hypotheses, which were subsequently subject to statistical assessment. This step determines the significance and direction of the relationships hypothesized among the respective variables. A quantitative research method was found reasonable, given that all relevant variables can be represented numerically. The statistical techniques employed for the response analysis, namely Correlation and Hierarchical Multiple Linear Regression, are further outlined in this chapter. Preceding the statistical hypothesis testing, a descriptive analysis of the gathered data is also provided.

Based on prior literature, an online structured closed-end questionnaire (see Appendix A) was developed through the Qualtrics Survey Software. This research tool is widely used among academics, as it allows for a large variety of question types and provides the option to directly export large datasets to the SPSS software for the statistical analysis. In addition, several benefits of online surveys include low costs, convenience for participants, speed of delivery and response, simplicity of data cleaning and analysis, and participant anonymity (Sills & Song, 2002; Van Selm & Jankowski, 2006).

4.2. Sampling

Due to this study's scope and the limited resources regarding factors such as time and labor, the data was obtained from convenience sampling. This non-probability sampling methodology, also called accidental or haphazard sampling (Etikan, Musa & Alkassim, 2016), represents one of the most frequently used sampling techniques. Moreover, this study uses convenience sampling, as it meets the financial and timely constraints of the research scope (Acharya et al., 2013). In line with the convenience sampling approach, the self-administered questionnaire was distributed to a fraction of the target population easily accessible to the researcher, both in geographical and temporal terms.

Placed at the beginning of the questionnaire, the filter question: 'Have you ever purchased or are planning on purchasing luxury fashion and/or luxury leather goods in the near future?'

optimized respondents' fit for the studied topic and ensured that only luxury consumers were considered. Participants who answered this question negatively were directed to the end of the survey. Thus, they were excluded from the relevant sample. This filter question aimed to achieve an appropriate and representative sample composition concerning the study's luxury context. Moreover, the questionnaire provided instructions to participants to increase respondents' overall comprehension of the study and respondents were assured of anonymity, which is crucial to ensure honest answers and avoid social desirability bias due to self-presentation concerns (Krumpal, 2013; Wildman, 1977). Finally, the chance of response bias was further limited as survey participation was completely voluntary, in line with the suggestions of Singh and Srivastava (2018).

The online survey was accessible through an anonymous link generated by Qualtrics that was distributed via social media applications such as WhatsApp or Instagram. The survey was active from February 27th, 2023, to April 7th, 2023, reaching a total of 241 respondents. Of these participants, 179 had previously purchased or were planning on purchasing luxury fashion and/or luxury leather goods in the near future. Of these 179 respondents who had passed the filter question, another 133 fully completed the survey. Considering only those who passed the filter question, a relevant response rate of 74 percent was attained. According to the sample size determination formula proposed by Green (1991) and more recently confirmed by Saunders et al. (2019), a minimum of 106 survey responses must be obtained in the case of this research. More specifically, the sample size must exceed *50 + 8 * the number of predictor variables*. As this study deals with a total of *seven* independent predictor variables, this study's final sample size of 133 meets the guidelines for sample size.

4.3. Research Design

The questionnaire was composed of a total of six blocks (see Appendix A). Blocks One to Three mainly addressed introductory and administrative matters. Namely, Block One briefly introduced participants to the study's objectives, informed them about the guidelines and procedure (e.g., duration, anonymity), and thanked them for participating. Block Two asked the filter question to identify whether respondents were luxury consumers or not. This step was crucial in ensuring the final sample's familiarity with the luxury context. Block Three served to clarify the study's focus on green fashion and leather goods, specifically from the luxury sector, defined key concepts and terms such as green luxury, using the definition of green

products proposed by Durif et al. (2010), and informed participants about characteristics of the luxury sector. While a selection of past studies has chosen a handbag as the central product of the research (e.g., Han et al., 2010; Hung et al., 2011), this study focused on luxury fashion and leather goods. This broader scope was chosen to maximize the number of respondents and limit response bias due to the personal taste of a specific product category (i.e., handbags). Perhaps, a respondent that does not appreciate luxury handbags, however, is very fond of other products falling into the category of luxury fashion and leather goods, such as scarves. The broader focal point aimed to minimize the effect of a specific product type on participants' indicated purchase intention.

Next, Blocks Four and Five directly had to do with the research's main variables. Block Four covered the dependent variable GPI and measured the construct with three questions. The following Block Five represented the questionnaire's largest block, as it addressed the study's seven independent variables. An overview of the independent and dependent constructs and their respective items can be found below in Table 2. More details regarding the items are provided in the following section 4.4. 'Instrument Development based on prior Research.'

Finally, Block Six was concerning the four socio-demographic control variables age, gender, educational level and nationality.

A summary of the utilized constructs may be found below in Table 2.

Construct (no. of items)	**Items**	**Source**
Green Purchase Intention (3 items)	GPI01. *I intend to purchase green luxury fashion and/or leather goods.*	Armitage *et al.* (1999)
	GPI02. *I plan to purchase green luxury fashion and/or leather goods.*	
	GPI03. *I want to purchase green luxury fashion and/or leather goods.*	
Attitude (2 items)	A01. *I think practicing green consumption is valuable.*	Wu and Chen (2014)
	A02. *I think it's wise to practice green consumption.*	

Subjective Norm (4 items)	SN01. *People who are important to me think I should purchase green luxury fashion and/or leather goods.*	Armitage *et al.* (1999)
	SN02. *People who are important to me would approve of my purchasing green luxury fashion and/or leather goods.*	
	SN03. *People who are important to me want me to purchase green luxury fashion and/or leather goods.*	
	SN04. *I feel under social pressure to purchase green luxury fashion and/or leather goods.*	
Perceived Behavioral Control (3 items)	PBC01. *Whether or not I purchase green luxury fashion and/or leather goods is completely up to me.*	Han *et al.* (2010)
	PBC02. *I am confident that if I want, I can purchase green luxury fashion and/or leather goods.*	
	PBC03. *I have resources, time, and opportunities to purchase green luxury fashion and/or leather goods.*	
Environmental Concern (4 items)	EC01. *Environmental problems are not affecting my life personally.*	Ellen *et al.* (1991)
	EC02. *Environmental problems are exaggerated, because in the long run things balance out.*	
	EC03. *I have too many obligations to take an active part in an environmental organization.*	
	EC04. *I can think of many things I'd rather do than work toward improving the environment.*	
Perceived Consumer Effectiveness (2 items)	PCE 01. *There is not much that any one individual can do about the environment.*	Ellen *et al.* (1991)
	PCE 02. *The conservation efforts of one person are useless as long as other people refuse to conserve.*	
Altruism (2 items)	ALT01. *The well-being of others is important to me.*	Tewari *et al. (*2022)
	ALT02. *One of the greatest satisfactions in life comes from giving to others.*	
Environmental Knowledge (6 items)	EK01. *I know that I buy products and packages that are environmentally safe.*	Mohr *et al.* (1998)

	EK02. *I know more about recycling than the average person.*	
	EK03. *I know how to select products and packages that reduce the amount of waste ending up in landfills.*	
	EK04. *I understand the environmental phrases and symbols on product package.*	
	EK05. *I am confident I know how to sort my recyclables properly.*	
	EK06. *I am very knowledgeable about environmental issues.*	

Table 2 - Construct Overview

4.4. Instrument Development based on prior Research

The variables assessed in questionnaire Blocks Four and Five, and exhibited in Table 2 above, were operationalized according to existing validated scales obtained from prior academic literature. To measure the questionnaires' outcomes, the participants were asked to indicate their responses to the individual items according to a five-point Likert scale, whereby one indicates 'strongly disagree,' and five implies 'strongly agree.' The relevant variables were measured based on items used in prior research, whereby the statements were adapted to the luxury context when necessary and adjusted to fit a five-point Likert scale. While each variable was assessed through a multi-item approach, the number of items was decreased to include only those with the highest factor loadings in some cases. This aimed at decreasing the response duration to maximize survey completion rates. While the proposed scales have been declared valid and reliable in prior literature, the scales' internal consistency was further tested using the common statistic Cronbach's Alpha.

4.4.1. Independent Variables

Attitude. The variable Attitude was computed by asking survey respondents to indicate their Attitude toward the purchase of green luxury products, according to items also used by Wu and Chen (2014) and more recently by Tewari et al. (2022). The adapted items included in the

survey are ‘I think practicing green consumption is valuable.’ and ‘I think it’s wise to practice green consumption.’.

Subjective Norm. In accordance with prior research (e.g., Ko & Jin, 2017; Armitage et al.,1999), SN was operationalized based on four questions. The four survey items include the following statements ‘People who are important to me think I should purchase green luxury fashion and/or leather goods.’, ‘People who are important to me would approve of my purchasing green luxury fashion and/or leather goods.’. ‘People who are important to me want me to purchase green luxury fashion and/or leather goods.’ and ‘I feel under social pressure to purchase green luxury fashion and/or leather goods.’.

Perceived Behavioral Control. This construct was assessed based on the adapted versions of the items used by Han et al. (2010), which has been used in other studies as well (e.g., Teng et al., 2015). Hereby, respondents were asked to state their (dis)agreement to the statements,’ Whether or not I purchase green luxury fashion and/or leather goods is completely up to me.’, ‘I am confident that if I want, I can purchase green luxury fashion and/or leather goods.’ as well as ‘I have resources, time, and opportunities to purchase green luxury fashion and/or leather goods.’.

Environmental Concern. Based on four items obtained from prior academics (e.g., Ellen et al., 1991), EC was evaluated. More precisely, respondents were asked to indicate their (dis)agreement with the following statements: ‘Environmental problems are not affecting my life personally.’, ‘Environmental problems are exaggerated because, in the long run, things balance out.’, ‘I have too many obligations to take an active part in an environmental organization.’ and ‘I can think of many things I’d rather do than work toward improving the environment.’.

Perceived Consumer Effectiveness. Again, based on a two-item scale employed by Ellen et al. (1991), PCE was measured based on consumers’ (dis)agreement with the statements ‘There is not much that any one individual can do about the environment.’ and ‘The conservation efforts of one person are useless as long as other people refuse to conserve.’.

Altruism. As used by Tewari et al. (2022), Altruism was assessed according to two statements, which are "The well-being of others is important to me." and "One of the greatest satisfactions in life comes from giving to others.".

Environmental Knowledge. Several scales attempt to measure EK in prior research. A six-item scale, which has been adopted frequently in prior research (e.g., Mostafa, 2007; Ko & Jin, 2017; Mohr et al., 1998) and includes the following statements was used: 'I know that I buy products and packages that are environmentally safe.', 'I know more about recycling than the average person.', 'I know how to select products and packages that reduce the amount of waste ending up in landfills.', 'I understand the environmental phrases and symbols on the product package.', 'I am confident I know how to sort my recyclables properly.' and 'I am very knowledgeable about environmental issues.'.

4.4.2. Dependent Variables

Green Purchase Intention. The dependent variable GPI was measured, as proposed by Ko and Jin (2017), who built on the scale proposed by Armitage et al. (1999). For this study, the scale was adapted to the context of green luxury purchases and included three items: 'I intend to purchase green luxury fashion and/or leather goods.', 'I plan to purchase green luxury fashion and/or leather goods.' and 'I want to purchase green luxury fashion and/or leather goods.'.

4.4.3. Control Variables: Socio-Demographic Influences on Green Purchase Intention

Certain variables can manipulate experimental results as they influence the dependent variable. Therefore, to correctly assess the proposed relationship between the independent and dependent variables, such factors should be included in an experiment as control variables. Kaur et al. (2022) note that socio-demographic traits do affect purchasing power and behavior, which is why they suggest the inclusion of demographic control variables in their research on purchase intention. Albeit not serving as the central research focus, this study has included the socio-demographic variables age, gender, level of education, and nationality as control variables.

4.5. Data Analysis Procedure

The relevant data regarding the independent variables (Attitude, SN, PBC, EC, PCE, Altruism, and EK) and the dependent variable (GPI) obtained through the survey was exported to the

renowned statistics software SPSS. There, the utilized multi-item scales were tested for reliability and normality. Then, a descriptive analysis was performed to provide insights into the sample's socio-demographic composition and the mean responses regarding the model's variables. Subsequently, the hypotheses were tested for significance in two steps. Firstly, a Person Correlation Analysis was conducted. After that, a Hierarchical Multiple Regression Analysis was performed, composed of two models: one with and one without the demographic control variables.

5. Results

5.1. Reliability Analysis

When analyzing data, it is crucial to assess the independent and dependent constructs and their respective items for internal consistency. A frequently used indicator of internal consistency is Cronbach's Alpha which measures to what degree multiple items measure the same construct and hence whether scales prove reliable. Hereby, a high alpha value indicates that individual items have common variances with other scale items (Gardner, 1995). Scholars commonly use a Cronbach's Alpha level of 0.6 as a threshold for sufficient internal consistency (e.g., Tinakon & Nahathai, 2012; Rahimnia & Hassanzadeh, 2013). The reliability analysis results for both the independent and dependent variables can be found in Table 3 below and confirm the reliability of all used scales. As scales were obtained from prior research, whereby items with the respectively highest factor loadings were chosen, sufficient reliability of scales was expected. Given the results, the statistical analysis may be completed without modifying the scales.

Independent Variable	**Initial item number**	**Cronbach's Alpha**	**Deleted Items**	**Final item number**
Attitude (A)	2	0.887	-	2
Subjective Norm (SN)	4	0.749	-	4
Perceived Behavioral Control (PBC)	3	0.653	-	3
Environmental Concern (EC)	4	0.691	-	4
Perceived Consumer Effectiveness (PCE)	2	0.735	-	2
Altruism (ALT)	2	0.720	-	2
Environmental Knowledge (EK)	6	0.785	-	6
Dependent Variable	**Initial item number**	**Cronbach's Alpha**	**Deleted Items**	**Final item number**
Green Purchase Intention (GPI)	3	0.880	-	3

Table 3 - Summary of Reliability Analysis

5.2. Normality Assumption

An assumption for correlation and regression analysis is the normal distribution of variables. One method of normality assessment is to conduct a skewness test. Kim (2013) suggests that resulting z-scores ranging from absolute values ± 1.96 to ± 3.29 are acceptable for medium-sized samples of 50 to 300, while other researchers prefer a maximum acceptable z-score of ±1.96 for the data to be considered as normally distributed (Demir, 2022; Field, 2013; Tabachnick et al., 2013). However, Table 5 below shows that based on z-scores, only the variable SN is normally distributed. In response, the variables were log-transformed, which in this case did not improve the z-scores, as seen again in the table below. Thus, a second approach was used to test for normal distribution: Henderson (2006) has stated that normality may also be assessed via graphic tools. Hereby, quantile-quantile (Q-Q) plots pose an excellent and frequently used method, according to Bringula et al. (2018). When looking at the Q-Q plots in Appendix B, the variables' deviation from the line is minimal, suggesting normality. Also, after performing a log transformation of variables, the Q-Q plots do not improve substantially (see Appendix B). Thus, the variables are considered sufficiently normal for this study, and the statistical analysis will proceed using non-log-transformed variables.

Pre log Transformation				**Post log Transformation**			
IV	**Skeweness Statistic**	**Skeweness Std. Error**	**z**	**IV**	**Skeweness Statistic**	**Skeweness Std. Error**	**z**
A	-1.564	0.21	-7.45	Log_A	-2.87	0.21	-13.68
SN	0.024	0.21	0.11	SN	0.02	0.21	0.11
PBC	-1.048	0.21	-4.99	Log_PBC	-2.48	0.21	-11.79
EC	-0.574	0.21	-2.73	Log_EC	-1.20	0.21	-5.71
PCE	-0.733	0.21	-3.49	Log_PCE	-1.55	0.21	-7.39
ALT	-1.372	0.21	-6.53	Log_ALT	-2.28	0.21	-10.87
EK	-0.499	0.21	-2.38	Log_EK	-1.24	0.21	-5.91
DV	**Skeweness Statistic**	**Skeweness Std. Error**	**z**	**DV**	**Skeweness Statistic**	**Skeweness Std. Error**	**z**
GPI	-0.689	0.21	-3.28	Log_GPI	-1.90	0.21	-9.06

Table 4 - Skewness of Variables

5.3. Descriptive Analysis

Overall, the final sample included 133 relevant responses. A descriptive overview of the demographic constellation of the sample can be found below in Table 5. In terms of age, the majority of respondents fall into the category of 18-to-24-year old's (39.1 percent), followed by the category of 55-to-64-year old's (27.8 percent). Furthermore, 64.7 percent of participants are female, and 33.8 percent are male. In terms of highest level of education, 62 participants (46.6 percent) hold a master's degree, followed by 56 (42.1 percent) who have obtained a bachelor's degree. Finally, with 93 participants from Germany, Germany is by far the most represented nationality within the sample.

Item	Selection	Frequency	Percent	Cumulative Percent
Age	***18-24***	***52***	***39.1***	***39.1***
	25-34	22	16.5	55.6
	35-44	6	4.5	60.2
	45-54	15	11.3	71.4
	55-64	37	27.8	99.2
	65-74	1	0.8	100.0
Gender	Male	45	33.8	33.8
	Female	***86***	***64.7***	***98.5***
	Prefer not to say	2	1.5	100.0
Highest Level of Education	Less than High School	2	1.5	1.5
	High School	4	3.0	4.5
	Bachelor's Degree	56	42.1	46.6
	Master's Degree	***62***	***46.6***	***93.2***
	Ph.D. or higher	7	5.3	98.5
	Trade School	1	0.8	99.2
	Prefer not to say	1	0.8	100.0
Nationality	Austrian	3	2.3	2.3
	Chinese	1	0.8	3.0
	Dutch	2	1.5	4.5

	French	13	9.8	14.3
	German	***93***	***69.9***	***84.2***
	Italian	3	2.3	86.5
	Portuguese	1	0.8	87.2
	Spanish	1	0.8	88.0
	US-American	8	6.0	94.0
	Other	8	6.0	100.0

Table 5 - Descriptive Analysis of Respondents' Profile

Before statistically analyzing the relationships among the various variables, a descriptive overview is provided. Table 6 below shows that the sample's GPI has a mean score of 3.5, indicating a slightly positive tendency towards purchasing green luxury fashion or leather goods. Among the predictor variables, the highest mean is reached for the independent variable Attitude (4.44), followed by Altruism (4.29) and PBC (3.96), indicating that the sample finds green consumption to be rather wise and valuable on average. Furthermore, the respondents generally care for others' well-being and do not perceive the purchasing green luxury fashion or leather goods as tricky.

Independent Variable	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
Attitude (A)	133	1.00	5.00	4.4436	0.799276
Subjective Norm (SN)	133	1.00	5.00	3.0771	0.836083
Perceived Behavioral Control (PBC)	133	1.00	5.00	3.9624	0.820255
Environmental Concern (EC)	133	1.50	5.00	3.7368	0.827622
Perceived Consumer Effectiveness (PCE)	133	1.00	5.00	3.7556	1.105456

Altruism (ALT)	133	1.50	5.00	4.2932	0.712783
Environmental Knowledge (EK)	133	1.67	5.00	3.5727	0.660436
Dependent Variable	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
Green Purchase Intention (GPI)	133	1.00	5.00	3.538847	0.929974

Table 6 - Descriptive Overview

5.4. Hypothesis Testing

Two statistical methods were applied to test the hypothesized relationships among variables for statistical significance. Firstly, a Pearson Correlation analysis was performed to gain an initial understanding of the results. Then followed a Hierarchical Multiple Regression analysis, composed of two models. While Model I includes only the independent and dependent variables, the more comprehensive Model II is expanded to include the socio-demographic control variables to further assess the results obtained from the Pearson Correlation test.

Respectively, the initial Pearson Correlation analysis was performed to make conclusions regarding the linear relationships of two underlying variables. Hereby, it must be noted that correlation does not imply causality of a relationship. Thus, a regression analysis followed to gather insights into the causality of the underlying relationships. More specifically, regression is used to predict the values of the dependent variables, in this case, GPI, given a predictor variable's value. While the Pearson Correlation test only considers the relationship between two variables, a multiple linear regression considers multiple independent variables in a single model while controlling for the effect of each independent variable on the dependent variable (Shi & Conrad, 2009). More specifically, this study applies the multiple regression method of Hierarchical Regression, in which predictor variables are added to the regression model in a sequence selected by the researcher (O`Brian & Sharkey Scott, 2012).

5.4.1. Pearson Correlation Analysis

The results of the Pearson Correlation test indicate both the magnitude and direction of the correlation between two continuous variables. The Pearson Correlation coefficient 'r' can reach

values from -1.0 to 1.0, whereby perfect correlation is indicated by a value of 1. The coefficient's sign illustrates the either positive or negative nature or direction of the relationship, and the absolute value indicates the magnitude of the relationship's strength. Essentially, the underlying logic is as follows: the higher the absolute value, the stronger the relationship (DeCoster & Claypool, 2004; Sedgwick, 2012).

From the below Table 7, it can be observed that Attitude (r = 0.257), SN (r = 0.328), Altruism (r = 0.202), and EK (r = 0.163) were found to have a statistically significant positive correlation with the dependent variable GPI. Correlations between GPI and SN and Attitude demonstrated the strongest significance ($p < 0.01$) and was followed by Altruism ($p = 0.020$). Significance for the correlation of EK and GPI could only be found at the 0.10 level with a p-value of 0.062.

Independent Variable	Pearson's r GPI	Sig. (2-tailed)
A	**0.257*** **	**0.003**
SN	**0.328*** **	**<0.001**
PBC	-0.046	0.598
EC	0.040	0.644
PCE	-0.037	0.674
ALT	**0.202** **	**0.020**
EK	**0.163***	**0.062**

***Correlation is significant at the 0.01 level (2-tailed)
**Correlation is significant at the 0.05 level (2-tailed)
*Correlation is significant at the 0.10 level (2-tailed)

Table 7 - Correlation of Independent Variables and Dependent Variable GPI

Given the correlation results in Table 7, hypotheses 1, 2, 6, and 7 can be confirmed, stating that Attitude, SN, Altruism, and EK are each significantly positively related to GPI. However, PBC, EC, and PCE were not found to be statistically significant drivers of GPI.

Besides the correlation between each individual variable and the dependent variable, the correlations among the seven independent variables were also assessed. The correlation table below shows that Attitude significantly correlates positively with SN, EC, PCE, and Altruism. The below table demonstrates that the highest correlation coefficient among independent

variables is 0.548 between Altruism and Attitude. According to Hair et al. (2014) and Saunders et al. (2019), coefficient values above 0.9 indicate substantial collinearity, which is not the case in this dataset. Thus, multicollinearity does not form a concern for further hypothesis analysis.

	A	SN	PBC	EC	PCE	ALT
Attitude (A)						
Subjective Norm (SN)	**0.204****					
Perceived Behavioral Control (PBC)	0.093	-0.002				
Environmental Concern (EC)	**0.350*****	0.058	-0.072			
Perceived Consumer Effectiveness (PCE)	**0.477*****	0.001	0.005	**0.460*****		
Altruism (ALT)	**0.548*****	0.138	0.075	**0.310*****	**0.274*****	
Environmental Knowledge (EK)	0.142	**0.266*****	0.041	**0.218****	0.014	0.040

***Correlation is significant at the 0.01 level (2-tailed)
**Correlation is significant at the 0.05 level (2-tailed)
*Correlation is significant at the 0.10 level (2-tailed)

Table 8 - Pearson Correlation among Independent Variables

5.4.2. Hierarchical Multiple Regression Analysis

As the Pearson Correlation test does not allow for conclusions regarding the predictive power of independent variables, this study also used Hierarchical Multiple Regression to investigate further the proposed hypotheses (O`Brian & Sharkey Scott, 2012). The analysis includes two models, whereby Model I involves the independent variables (EK, PCE, PBC, SNO, ALT, ECO, and A), and Model II is expanded to also account for the demographic control variables (age, gender, nationality, and education). The dependent variable remained GPI in both models.

Model I can be described by the following equation:

$$Green\ Purchase\ Intention = \alpha + \beta_1 Attitude + \beta_2\ Subjective\ Norm + \beta_3\ Perceived\ Behavioral\ Control + \beta_4\ Environmental\ Concern + \beta_5\ Perceived\ Consumer\ Effectiveness + \beta_6\ Altruism + \beta_7\ Environmental\ Knowledge + \varepsilon$$

Model II can be described by the following equation:

$$Green\ Purchase\ Intention = \alpha + \beta_1 Attitude + \beta_2\ Subjective\ Norm + \beta_3\ Perceived\ Behavioral\ Control + \beta_4\ Environmental\ Concern + \beta_5\ Perceived\ Consumer\ Effectiveness + \beta_6\ Altruism + \beta_7\ Environmental\ Knowledge + \beta_{8\text{-}9}\ Control\ Variables + \varepsilon$$

As can be seen below in Table 9, the R-square value of Model 1 was 0.18, meaning that jointly the independent variables of Attitude, SN, PBC, EC, PCE, Altruism, and EK explain 18% of the variance in predicting luxury consumers' intention to purchase green luxury fashion or leather goods.

By adding the demographic variables age, gender, education, and nationality to the existing model, the R-square increases to 0.330 in Model II, meaning that these demographic factors help improve the model and allow for a better explanation of the dependent variable's variance. In addition, while the F-values and the associated p-values confirm the significance of both models, the F-value increases to 5.414 in the more complex Model II, indicating a more accurate prediction of the dependent variable when socio-demographics are accounted for.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
I	.427[a]	0.182	0.137	0.86411	3.984	<0.001
II	.574[a]	0.330	0.269	0.79515	5.414	<0.001

a. Predictors: (Constant), EK, PCE, PBC, SNO, ALT, ECO, A
b. Predictors: (Constant) Nationality, Age, Education, Gender, EK, PCE, PBC, SNO, ALT, ECO, A

Table 9 - Summary of Model I and II

Looking at the β-coefficients of the variables in each model helps identify the strongest predictor variables of the dependent variable. Firstly, it must be noted that in both models, only the independent variables Attitude ($p_{ModelI} = 0.0028 < 0.05$; $p_{ModelII} = 0.054 < 0.1$) and SN ($p_{ModelI} = 0.004 < 0.05$; $p_{ModelII} = 0.001 < 0.05$) are significant predictors or GPI. Model II then also reveals the socio-demographic control variables Age ($p = 0.033 < 0.05$) and Gender ($p = 0.000 < 0.05$) to be statistically significant indicators of GPI. In summary, a person's Attitude, SN, Age, and Gender have a significant effect on their intention to purchase green luxury fashion or leather goods according to the Hierarchical Multiple Regression analysis.

	Model I				**Model II**			
	Unstand. β	Stand. β	t	Sig.	Unstand. β	Stand. β	t	Sig.
(Con.)	1.571		2.187	0.031	1.052		1.369	0.174
A	0.282	0.242	2.228	***0.028***	0.228	0.196	1.943	***0.054***
SN	0.277	0.249	2.896	***0.004***	0.314	0.283	3.514	***<0.001***
PBC	-0.090	-0.080	-0.970	0.334	-0.028	-0.024	-0.315	0.753
EC	-0.038	-0.034	-0.349	0.728	-0.102	-0.090	-1.005	0.317
PCE	-0.137	-0.163	-1.635	0.105	-0.074	-0.088	-0.931	0.354
ALT	0.121	0.093	0.944	0.347	0.058	0.045	0.482	0.630
EK	0.100	0.071	0.818	0.415	0.110	0.078	0.969	0.334
Age					-0.099	-0.183	-2.158	***0.033***
Gender					0.594	0.353	4.461	***<0.001***
Education					-0.002	-0.002	-0.023	0.982
Nationality					0.000	0.001	0.011	0.991

a. Dependent Variable: GPI

Table 10 - Coefficient Table of Hierarchical Regression in 2 Models

5.5. Results Summary

The results of the Pearson Correlation test and the two models of the subsequent regression can be found summarized below in Table 11. It becomes evident that the results of the Pearson Correlation test exceed those of the Hierarchical Multiple Linear Regression in terms of

significance. A potential explanation for these differences could be the increase in model complexity. The Pearson Correlation Test only tests the relationship between one independent variable and a respective dependent variable. However, multiple regression tests the joint effect of multiple independent variables on the dependent variable. Thus, the added variables increase the complexity of the model, limiting the detection of significant relationships. Also, as mentioned above, multiple regression models control for the effects of all predictor variables included in the model (O`Brian & Sharkey Scott, 2012). Thus, while Altruism and EK had a relationship with GPI in the correlation test, they could not show predictive power in the presence of other independent variables.

Hypothesis	**Test Results**		
	Correlation	**Regression Model I**	**Regression Model II**
H1: There is positive relationship between Attitude and GPI for personal luxury goods.	**Supported.***** r= 0.257 p= 0.003	**Supported.**** β= 0.282 p= 0.028	**Supported. *** β= 0.228 p= 0.054
H2: There is positive relationship between Subjective Norm (SN) and GPI for personal luxury goods.	**Supported.***** r= 0.328 p= <0.001	**Supported.***** β= 0.277 p= 0.004	**Supported.**** β= 0.314 p= 0.001
H3: There is a positive relationship between Perceived Behavioral Control (PBC) and GPI for personal luxury goods.	Not Supported.	Not Supported.	Not Supported.
H4: There is positive relationship between Environmental Concern (EC) and GPI for personal luxury goods.	Not Supported.	Not Supported.	Not Supported.
H5: There is positive relationship between Perceived Consumer Effectiveness (PCE) and GPI for personal luxury goods.	Not Supported.	Not Supported.	Not Supported.

H6: There is positive relationship between Altruism and GPI for personal luxury goods.	**Supported.**** r= 0.202 p= 0.020	Not Supported.	Not Supported.
H7: There is positive relationship between Environmental Knowledge (EK) and GPI for personal luxury goods.	**Supported. *** r= 0.163 p= 0.062	Not Supported.	Not Supported.

***significant at the 0.01 level (2-tailed)
**significant at the 0.05 level (2-tailed)
*significant at the 0.10 level (2-tailed)

Table 11 - Hypothesis Testing Overview

5.6. Additional Exploratory Analysis

While statistically significant support could only be found for hypotheses 1, 2, 6, and 7 in the correlation analysis, the regression also revealed that the socio-demographic variables gender and age have a statistically significant impact on the dependent variable.

More specifically, age was negatively correlated with the intention to purchase green luxury products or leather goods, with a p-value of 0.033. It appears that younger people are more likely to purchase green luxury. Also, the demographic control variable gender was strongly significant, with a p-value of <0.001 and a positive coefficient of 0.594. Given the coding of the gender variable, where 0 = male and 1 = female, the results can be interpreted as females being more prone towards the intention to purchase green luxury and leather goods.

6. Theoretical Discussion

This section intends to discuss this dissertation's main theoretical findings following the research's aim to unveil the influential factors of GPI in the personal luxury goods market. The empirical investigation hereby considered the factors of Attitude, Subjective Norm, and Perceived Behavioral Control proposed in Ajzen's (1991) Theory of Planned Behavior and complemented the model with the psychographic factors of Environmental Concern, Perceived Consumer Effectiveness, Altruism, and Environmental Knowledge. A discussion of the hypotheses in relation to prior theory follows.

6.1. Determinants of GPI according to the Theory of Planned Behavior (TPB)

Hypothesis 1: There is a positive relationship between Attitude and GPI for personal luxury goods.

Hypothesis 1 proposes that Attitude is positively correlated with a consumer's GPI for luxury goods. This positive relationship between Attitude and GPI could be confirmed in both the correlation analysis and in Model I and Model II of the Hierarchical Multiple Regression. As can be observed in Table 7, the Pearson Correlation test revealed a positive correlation coefficient of +0.257 which was significant at the 0.01 level ($p = 0.003$). This indicates that as an individual's Attitude towards green consumption becomes more positive, the probability of the intention to purchase green luxury also rises. Thus, Attitude can be declared an influential factor of GPI, confirming hypothesis 1.

Hypothesis 2: There is a positive relationship between Subjective Norm (SN) and GPI for personal luxury goods.

In Hypothesis 2, it is suggested that an individual's level of SN has a positive effect on consumers' purchase intention for green luxury goods. With a Pearson Correlation coefficient of +0.328, the relationship proposed in hypothesis 2 is the strongest and most significant ($p<0.001$) relationship found among two variables in this study. Also, both Model I and Model II confirmed the Pearson Correlation test result in the following hierarchical regression analysis. Thus, the hypothesis that a person's level of SN, or their feeling of social pressure, is positively correlated with their likelihood of intending to purchase green luxury items is confirmed.

Hypothesis 3: There is a positive relationship between Perceived Behavioral Control (PBC) and GPI for personal luxury goods.

Hypothesis 3 postulates a positive effect of PBC on luxury consumers' GPI. However, the observed Pearson Correlation Coefficient between PBC and GPI is negative (-0.046), which opposes the direction hypothesized based on prior academic findings. However, with a p-value of 0.598, the observed correlation lacks statistical significance. Also, the two hierarchical regression models do not show a significant relationship, meaning that the hypothesis could not be confirmed, and conclusively, there is no significant linear correlation between PBC and GPI in the given population.

In conclusion, the empirical findings of this research align with prior applications of TBP theory in green consumption literature to a certain extent: As predicted, TPB factors Attitude and SN succeed in predicting GPI in the personal luxury goods context. These results support prior studies confirming a positive relationship between these factors and purchase intention of luxury fashion (e.g., Salem & Chaichi, 2018; Jain & Khan, 2017). Furthermore, these findings demonstrate that Attitude and SN remain predictors of personal luxury goods also when they are communicated to be explicitly 'green'. However, contrary to the vast amount of research confirming PBC as an influencer of sustainably purchase intention (e.g., Hasan and Suciarto, 2020; Hsu et al., 2017) and luxury purchase intention (e.g., Ling, 2009; Jain, 2020) it was not found to be a predictor of GPI in context of sustainable luxury through this study's empirical findings. Given the lacking statistical support for a relationship between PBC and GPI, Ajzen's (1991) TPB model is not entirely applicable to determine consumers' purchase intentions for green personal luxury goods.

6.2. Psychographic Determinants of Green Purchase Intention

Hypothesis 4: There is a positive relationship between Environmental Concern (EC) and GPI for personal luxury goods.

In Hypothesis 4, prior research led to the assumption that environmental concern would increase luxury consumers' green purchase intention. However, the very low Pearson Correlation coefficient (0.040), which is statistically insignificant, fails to confirm the proposed relationship. Also, the hierarchical regression models could not confirm the hypothesis. Thus, within this study, a significant positive impact of EC on GPI could not be found.

Hypothesis 5: There is a positive relationship between Perceived Consumer Effectiveness (PCE) and GPI for personal luxury goods.

The prediction that PCE would increase GPI for luxury goods is made in Hypothesis 5. However, contrary to the hypothesis, a statistically significant effect could be found neither in the Pearson Correlation matrix nor the hierarchical regression models. In fact, the coefficients suggest a slightly negative correlation as opposed to the hypothesized positive relationship. Thus, hypothesis 5 could not be confirmed.

Hypothesis 6: There is a positive relationship between Altruism and GPI for personal luxury goods.

Hypothesis 6 proposes that a person's level of Altruism positively impacts his or her likelihood of purchasing green luxury goods. Pearson's Correlation was able to confirm this prediction, as the coefficient had a significant ($p < 0.05$) value of 0.202. However, the regression models were not able to confirm the results. This implies that Altruism and GPI are correlated but that Altruism is not necessarily a predictor of GPI. Conclusively, Hypothesis 6 found correlational confirmation according to Pearson Correlation but not predictive power in multiple linear regression.

Hypothesis 7: There is a positive relationship between Environmental Knowledge (EK) and GPI for personal luxury goods.

This study's final hypothesis suggests a positive effect of EK on luxury consumer intention to purchase green goods. With a p-value of 0.062 and a positive coefficient of 0.163, the Pearson Correlation test was able to confirm the hypothesis at a significant level ($p < 0.1$). However, the hypothesis was not confirmed in the subsequent hierarchical regression models, indicating that EK does not have a significant predictive power of GPI despite the correlation of the two variables.

These results demonstrate that in terms of psychographics, only Altruism and EK were empirically found to relate to GPI in the green personal luxury goods domain. This aligns with findings showcasing a relationship between Altruism and Ecologically Conscious Consumer Behavior (e.g., Straughan & Robert, 1999) and of EK and GPI (e.g., Ali & Ahmad, 2016). Prior findings of EC relating to green consumption behavior (e.g., Kim & Choi, 2005; Ali & Ahmad, 2016; Straughan & Roberts, 1999) and GPI in other industries such as green energy (Hartmann

& Apaolaza-Ibáñez 2012) could not be replicated in the personal luxury goods context. Thus, an individual's EC level does not appear to relate to their intention to purchase green personal luxury items. Similarly, this study's results contradict findings in other domains where PCE was found to be a relevant predictor of eco-friendly behavior, such as recycling (Webster, 1975). Even in the luxury context, Luvuri et al. (2022) found a positive relationship between PCE and purchase preferences for luxury organic beauty goods. Interestingly, this study failed to extend this finding to the specific luxury product category of fashion and leather goods.

Resulting from the hypothesis testing, the following final theoretical model was obtained:

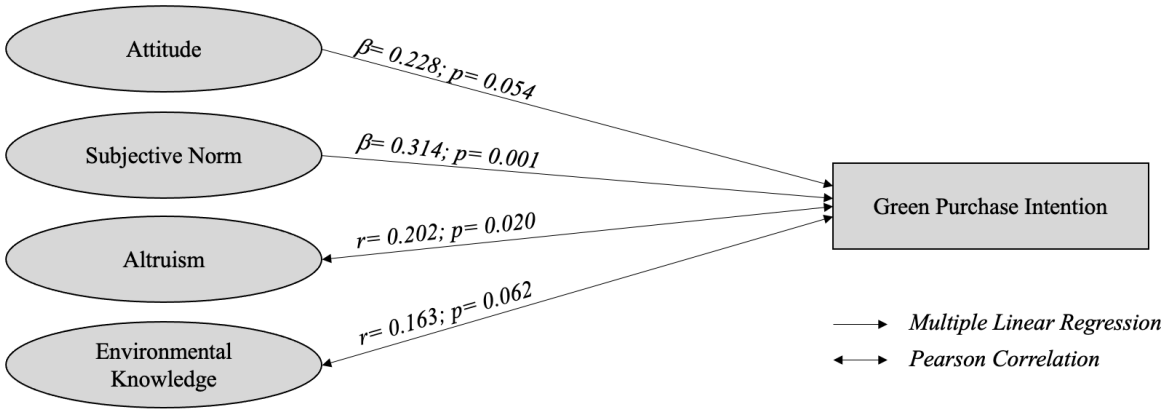

Figure 4 - Final Theoretical Model

6.3. Additional Effects of Socio-demographic Factors

Although not the central theme of this study, the additional exploratory analysis demonstrated the statistically significant predictive power of the socio-demographic variables age and gender on GPI for personal luxury goods such as fashion or leather items. This study's finding that women are more likely to display GPI in the research's context is in line with prior findings on gender and environmentalism (Banerjee and McKeage, 1994) and EC (Stern et al., 1993).

Regarding age, this study revealed that younger consumers are more likely to have GPI for personal luxury goods, which is in line with McKinsey & Company's (2020) findings about age and willingness to pay for sustainable fashion but contradicts meta-analytic findings of Wiernik et al. (2013) that older people are more invested in natural resource conservations, nature engagement and avoidance of environmental harm.

7. Conclusion

7.1. Theoretical Contribution

This study contributes to the research domain of green consumerism, green luxury purchasing behavior, and luxury consumer profiling in several ways. Firstly, it adds to the relatively novel contextual application of Ajzen's (1991) Theory of Planned Behavior to predict purchase intention by merging luxury and sustainable concepts. Furthermore, including psychographic predictor variables is an extension of the TPB model. Also, this study's focus on a specific sub-category of green personal luxury goods enriches the rather general research on green product purchases. Lastly, it adds to the ongoing debate of whether luxury consumers are interested in green personal luxury goods, and what characterizes their profiles.

Merging the Luxury and Sustainability Concepts

Sustainability is a concept that is gaining relevance across sectors and industries, including luxury. While historically, there is an ongoing debate whether luxury and sustainability are compatible, the rise of sustainable luxury brands such as Stella McCartney does indicate a shift towards sustainability. However, Google Scholar results concerning the topic of sustainable or green luxury purchasing behavior remain scarce. While the TPB has been used frequently to investigate purchase intention and behavior for luxury goods (e.g., Salem & Chaichi, 2018; Ling, 2009; Jain & Khan, 2017) and sustainable products and services (e.g., Chen & Tung, 2014; Hsu et al., 2017; Ko & Jin, 2017; Zhang et al., 2018; Hasan & Suciarto, 2020) since its introduction in 1991, no comprehensive large scale application of TPB in determining GPI in the context of sustainable personal luxury goods can be found. Hereby, this study revealed that only the TPB variables Attitude and SN are predictors of GPI of green luxury fashion or leather goods. At the same time, PBC and GPI were found to be unrelated. Thus, the TPB can only be partially applied in the context of green personal luxury goods.

Investigating the Relationship of Psychographics and GPI

In their comprehensive research agenda and synthesis of sustainable luxury marketing, Athwal et al. (2019) have suggested that the field requires more research regarding consumer identity and motives of sustainable luxury consumption. Similarly, Lavuri et al. (2022) have noted the need for further research regarding various drivers of purchase intention for sustainable luxury products. Thus, this study fills these research gaps by not only applying the TPB framework

but also investigating the influence of psychographic variables on GPI in the personal luxury goods market. Therefore, this research contributes to prior literature by investigating GPI through a combined model of TPB and the psychographic variables of Environmental Concern, Perceived Consumer Effectiveness, Altruism, and Environmental Knowledge. While only Altruism and Environmental Knowledge were individually found to be correlated to GPI and not in the full regression model, these findings nonetheless provide some empirical insights and could find further validation in future studies.

Exploring a New Product Category

In 2017, Liobikiene and Bernatoniene have pointed out that several prior literature pieces on drivers of green consumerism are rather broad and have suggested the independent investigation of more narrow product categories. Since then, more product category-specific research has been conducted. Examples include green apparel items (Ko & Jin, 2017), green housing (Zhang et al., 2018), organic foods (Hasan & Suciarto, 2020), or skincare (Hsu et al., 2017). However, in the domain of sustainable luxury, the research is almost limited to the field of green luxury cars (e.g., Ali et al., 2019; Aliyev et al., 2019) or luxury organic beauty products (Lavuri et al., 2022). Thus, the investigation of green luxury personal goods, with a focus on fashion and leather goods, fills a current gap in academia.

Characterizing the Green Luxury Consumer

Finally, there is a debate about whether luxury consumers are interested in sustainable options. The descriptive analysis revealed that this study's participants, all luxury consumers, scored slightly more positive than negative in terms of GPI for green luxury fashion. However, given the possibility of social desirability bias, this result should be treated somewhat cautiously. Nonetheless, it becomes evident that it is relevant to characterize the sustainable luxury consumer, so that personal luxury brands know how their target audience can be appropriately addressed. People who intend to purchase green luxury fashion or leather are altruistic, similar to what, for example, could be found in green hotel patronage intention (Tan et al., 2020) and green hotel selection (Wang et al., 2020).

Also, luxury consumers scoring high on GPI tend to have high levels of EK, in line with findings that EK is a driver of environmentally cautious attitudes and behaviors (Ajzen, 1991) and green purchase behavior (Peattie, 2010).

7.2. Managerial Implications

Practically, the theoretical framework derived from this research may aid marketers and managers within the personal luxury goods industry in several ways. First, by providing a better understanding of the green luxury customer, this research addresses current academia's contradictory findings regarding luxury consumers' appreciation for green luxury products. Only if luxury brands can identify the underlying drivers of green consumption, investments in sustainable initiatives and marketing prove reasonable from a business perspective.

More specifically, the findings of this study provide luxury practitioners with consumer insights regarding luxury buyers' drivers of green luxury purchases. This may support luxury brands in their customer profiling and allow for appropriate segmentation. Furthermore, the research results provide guidance to marketers regarding the design of communication strategies promoting their sustainable product offerings in a way that most effectively addresses the identified target group. Thus, the findings of this thesis ultimately hope to strengthen the bridge between the concepts of luxury and sustainability.

As previously mentioned, the research results revealed that Attitude, Subjective Norm, Altruism, and Environmental Knowledge are factors related to luxury consumers' purchase intention of green personal luxury goods. On the contrary, Perceived Behavioral Control, Environmental Concern, and Perceived Consumer Effectiveness were found to be insignificant factors.

Given the positive effect of Attitude on GPI, efforts of luxury companies to increase the general attitude towards green luxury appear useful. For example, they should actively communicate positive attributes and benefits of sustainable alternatives across various channels to nurture positive associations and attitudes among consumers. Findings also confirmed that Subjective Norm is a significant determinant of GPI for green luxury, highlighting the relevance of societal influence. As the perception and validation of the consumer's social circle of green luxury are likely to impact their decision-making process, luxury brands could benefit from using reference groups or influencer collaboration in their marketing and communications campaigns. Furthermore, individuals' Altruism levels were found to be positively correlated with GPI in the personal luxury goods category. This demonstrates that green luxury consumers generally tend to be concerned for the well-being of others, suggesting that luxury marketers

should demonstrate the positive effects of their green products on various members of society as well. For example, brands could highlight that potential efforts to limit toxic production waste not only improves the eco-system but also human health. Lastly, as Environmental Knowledge and GPI were found to be correlated, it may be recommended that luxury brands invest in educational content to inform their consumers about environmental issues. For example, the brands' website, social media platforms, or newsletters should regularly be updated in terms of informational content.

While not found to be significantly related to GPI, the discussion of Perceived Behavioral Control, Environmental Concern, and Perceived Consumer Effectiveness nonetheless can provide managerial implications. The lack of a significant correlation between Perceived Behavioral Control and GPI means that consumers' efforts to access and purchase green personal luxury products are not connected with purchase intention. This implies that further investments in making green products accessible might not be the most reasonable act of resource allocation. Additionally, this thesis failed to identify a correlation between Environmental Concern and GPI, meaning that marketers might want to refrain from fear appeal marketing campaigns that evoke environmental concern in consumers and instead focus on educational content, as mentioned above. Finally, this study's results revealed that Perceived Consumer Effectiveness was not significantly correlated with GPI. This means that communication efforts highlighting the positive consequences of an individual's green consumption behavior do not necessarily translate to purchase intention.

7.3. Limitations and Suggestions for Future Research

The final section of this research acknowledges the limitations of this research and provides suggestions for future research.

Firstly, the sample used to draw conclusions based on the quantitative analysis is not representative of the total target population. Many of the respondents were highly educated, with nearly 50 percent having obtained a master's degree. Furthermore, age cohorts were not equally represented. With a strong concentration on the 18-to-24-year old's followed by the 55- to 64-year-old's, not all age groups of luxury consumers were addressed. Lastly, the sample was not balanced in terms of gender and nationality, with the majority of respondents being female and German.

The reasons for the observed sample homogeneity is the use of non-probability convenience sampling, which can also be referred to as 'accidental samples' (Etikan et al., 2016). The sample is composed of respondents that were easy to reach for the researcher and as a result, not all target population member has an equal chance to participate in the study. Therefore, the results and implications of this research lack generalizability. Conclusively, it could be valuable to test the hypotheses based on data gathered through the stronger probability sampling method, which is referred to as the "gold standard in sampling methodology" (Acharya et al., 2013, p. 330) as it allows results to be generalized to the whole target population, ensuring generalizability of the research results to the target population (Acharya et al., 2013).

Furthermore, survey responses are likely to be characterized by social desirability bias, which is likely to occur in research concerning socially sensitive topics. According to Grimm (2010), social desirability can be described as the research phenomenon where individuals tend to indicate responses that they expect to be accepted by society and is closely related to the need for approval. As the general theme of this research is sustainability, respondents can be likely to respond to survey questions in a way that is socially acceptable, instead of what they genuinely believe. In this specific study, this could lead to results that are overly representative of pro-environmental intentions that divert from the sample's true intentions.

In relation to the social desirability bias mentioned above, the potential presence of an ethical consumption intention - behavior gap is worth mentioning. The intention - behavior gap is the disproportion between people's ethical intentions and their true behavior (Carrigan & Attalla, 2001; Carrington et al., 2014). Research has shown that social desirability bias can be an underlying reason for this gap and lead to overreporting pro ethical purchase intentions (e.g., Carrigan & Attalla, 2001; Auger & Devinney, 2007). Thus, investigating purchase behavior in addition to purchase intention could lead to valuable insights and help overcome the shortcoming of the ethical intention - behavior gap.

Furthermore, the survey provided a definition of green luxury that solely focused on the environmental side of sustainability: *'For the following questions please assume that green luxury fashion and leather goods are referred to as those "whose design and/or attributes*

(and/or production and/or strategy) uses recycling (renewable/toxic-free/biodegradable) resources and which improves environmental impact or reduces environmental toxic damage throughout its entire life cycle." (Durif et al., 2010). Thus, the social aspect of sustainability was ignored in this research, and it could be interesting to conduct this research focusing on social sustainability to draw comparative conclusions regarding luxury consumers intention to purchase green vs. social luxury. Furthermore, assessing the importance of the respective sustainability pillars to luxury consumers could guide luxury marketeers in the focus of their communications.

Finally, various comparative approaches could pose ideas for future research. Given the various categories associated with luxury, the focal sub-category of choice within this study was green luxury fashion and leather goods. However, future research could extend this study to examine various other categories, ranging from cosmetics to electronics. In this respect, a comparison of GPI among different luxury categories could be valuable. Also, it could be insightful to investigate consumers' attitudes towards green luxury services (e.g., tourism and hospitality) in comparison to products. Finally, a direct comparison of fast, premium, and luxury fashion in terms of GPI and customer profiling could be conducted.

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9. Appendices

Appendix A - Survey

Start of Block: Intro

INTRO Thank you for participating in this survey.

My name is **Emma Louise Güniker** and I am a Master in Management student at ESCP Business School and Católica Lisbon School of Business & Economics. I would like to encourage you to complete the questionnaire below, which is an important part of the research I am conducting for my Master thesis in the field of luxury marketing. Please answer the questions as accurately and honestly as possible. Before starting, please know:

*(1) Your participation in this survey is **voluntary and anonymous.***
*(2) There are **no right or wrong answers** and all opinions are valid and important.*
*(3) The survey will take approximately **5 minutes** to be completed.*

If you have any questions or concerns regarding this survey, please feel free to contact me at: **emma_louise.gueniker@edu.escp.eu**

Your help is much appreciated!

Start of Block: Filter Question Luxury Consumer

FIL01 Have you ever purchased or are planning on purchasing luxury fashion and/or luxury leather goods in the near future?

- ○ No (1)
- ○ Yes (2)

Start of Block: Definitions

DEF01 Before proceeding with the survey, please note that this study focuses on **green fashion and leather goods** specifically from the **luxury sector**, which are commonly referred to as **desirable**, **extraordinary** and **beyond what is necessary** and whose products can be characterized by factors such as **high prices**, **quality**, **rarity** or **aesthetics.** (Heine, 2012)

For the following questions please assume that **green luxury** fashion and leather goods are referred to as those "whose design and/or attributes (and/or production and/or strategy) uses recycling (renewable/toxic-free/biodegradable) resources and which **improves environmental impact** or **reduces environmental toxic damage throughout its entire life cycle**". (Durif et al., 2010)

Start of Block: Purchase Intention

GPI01 I intend to purchase green luxury fashion and/or leather goods.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

GPI02 I plan to purchase green luxury fashion and/or leather goods.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

GPI03 I want to purchase green luxury fashion and/or leather goods.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Start of Block: Determinants of Purchase Intentions

A01 I think practicing green consumption is valuable.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

A02 I think it’s wise to practice green consumption.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

SN01 People who are important to me think I should purchase green luxury fashion and/or leather goods.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

SN02 People who are important to me would approve of my purchasing green luxury fashion and/or leather goods.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

SN03 People who are important to me want me to purchase green luxury fashion and/or leather goods.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

SN04 I feel under social pressure to purchase green luxury fashion and/or leather goods.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

PBC01 Whether or not I purchase green luxury fashion and/or leather goods is completely up to me.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

PBC02 I am confident that if I want, I can purchase green luxury fashion and/or leather goods.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

PBC03 I have resources, time, and opportunities to purchase green luxury fashion and/or leather goods.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

EC01 Environmental problems are not affecting my life personally.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

EC02 Environmental problems are exaggerated, because in the long run things balance out.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

EC03 I have too many obligations to take an active part in an environmental organization.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

ECO4 I can think of many things I'd rather do than work toward improving the environment.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

PCE01 There is not much that any one individual can do about the environment.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

PCE02 The conservation efforts of one person are useless as long as other people refuse to conserve.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

ALT01 The well-being of others is important to me.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

ALT02 One of the greatest satisfactions in life comes from giving to others.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

EK01 I know that I buy products and packages that are environmentally safe.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

EK02 I know more about recycling than the average person.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

EK03 I know how to select products and packages that reduce the amount of waste ending up in landfills.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

EK04 I understand the environmental phrases and symbols on product package.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

EK05 I am confident I know how to sort my recyclables properly.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

EK06 I am very knowledgeable about environmental issues.

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

Start of Block: Demographics

Dem01 How old are you?

- ○ Under 18 (1)
- ○ 18 - 24 (2)
- ○ 25 - 34 (3)
- ○ 35 - 44 (4)
- ○ 45 - 54 (5)
- ○ 55 - 64 (6)
- ○ 65 - 74 (7)
- ○ 75 or older (8)

Dem02 What gender do you identify as?

- ○ Male (1)
- ○ Female (2)
- ○ Non-binary / third gender (3)
- ○ Prefer not to say (4)

Dem03 What is the highest degree or level of education you have completed?

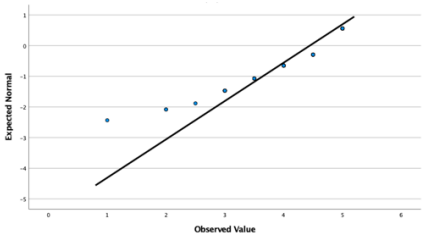
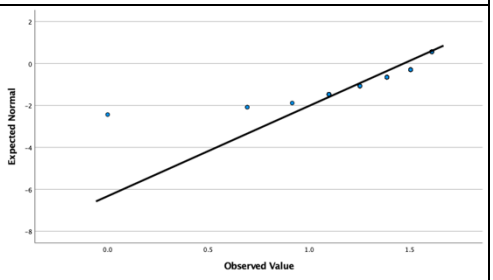
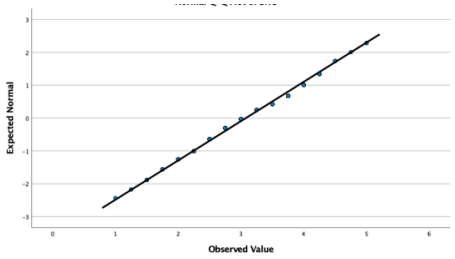
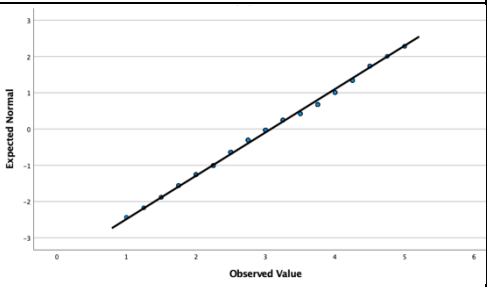
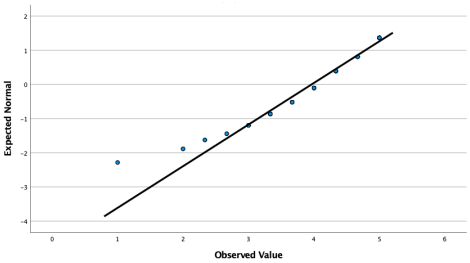
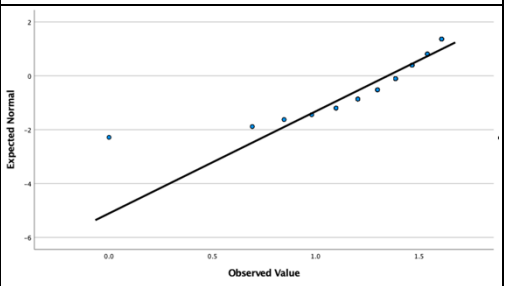
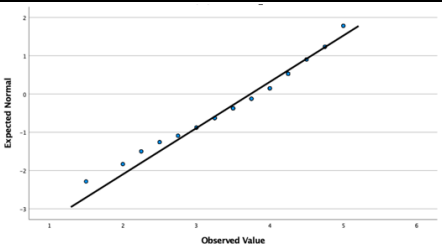
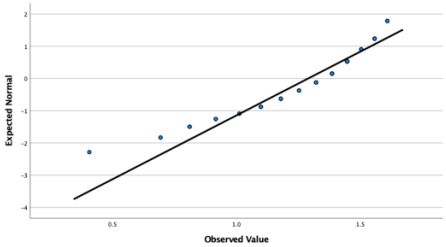
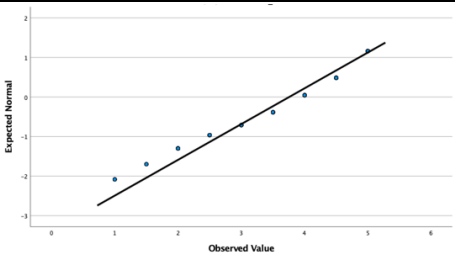
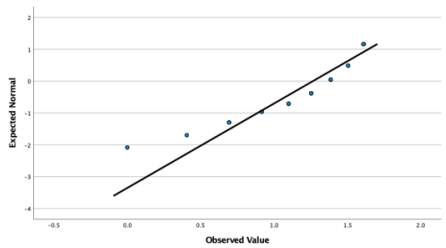
- ○ Less than high school (1)
- ○ High School (2)
- ○ Bachelor's Degree (3)
- ○ Master's Degree (4)
- ○ Ph.D. or higher (5)
- ○ Trade School (6)
- ○ Prefer not to say (7)

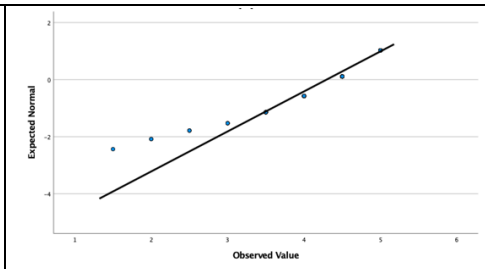
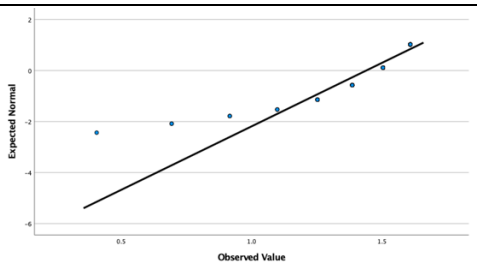
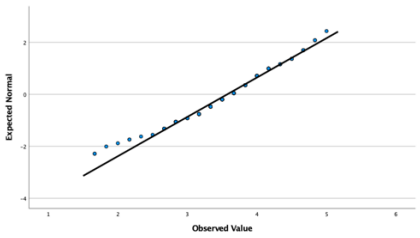
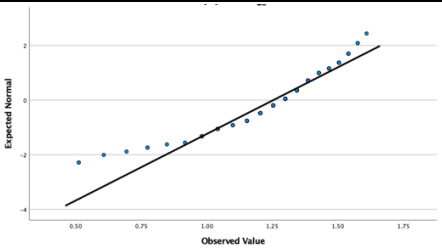
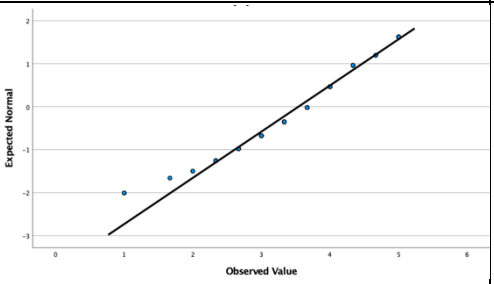
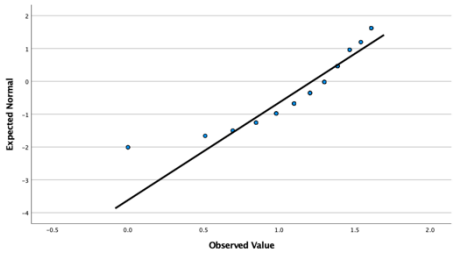
Q33 Please indicate your nationality:

- ○ Austrian (1)
- ○ Chinese (2)
- ○ Dutch (3)
- ○ French (4)
- ○ German (5)
- ○ Indian (6)
- ○ Italian (7)
- ○ Portuguese (8)
- ○ Spanish (9)
- ○ US-American (10)
- ○ Other (please indicate): (11)

End of Block: Demographics

Appendix B - QQ Plots for Normality Test

Independent Variable	QQ Plots without log Transformation	QQ Plots with log Transformation
Attitude		
Subjective Norm		
Perceived Behavioral Control		
Environmental Concern		
Perceived Consumer Effectiveness		

Altruism		
Environmental Knowledge		
Dependent Variable		
Green Purchase Intention		

Affidavit

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I also confirm this work has not previously been submitted during studies prior to ESCP Europe. If this work has been written during studies conducted in parallel to my time at ESCP Europe, I must state it.

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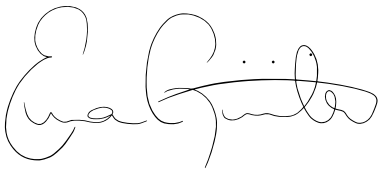

Emma Louise Güniker

12/May/2023