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The Impact of Sustainable Packaging on Consumer Perceptions in Luxury Products: Navigating the Shift in Consumer Expectations and the Prestige Dilemma

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Abstract

With the general rise in environmental awareness, luxury companies started facing the challenge of integrating sustainable practices into their production, while avoiding compromises to the prestige and exclusivity that have always defined their market positioning. This thesis examines the impact of sustainable packaging on consumer perceptions within the luxury segment, with a particular focus on its effect on the perceived prestige of a brand.

Based on a comprehensive literature review, this study examines the paradoxical relationship between luxury and sustainability, aiming to understand consumer expectations and perceptions regarding the emerging concept of 'sustainable luxury'. Through an empirical study involving 144 participants from various European countries, the research tests a mediation model in which the type of packaging, luxurious-looking versus sustainable-looking, influences brand prestige through perceived status communication. The findings indicate that the use of sustainable-looking packaging for a luxury product, in this case a perfume, led to a decrease in the perceived prestige of both the brand and the product itself. This effect is also linked to a lower perception of status communication. However, as previous studies have shown, luxury brands can adopt sustainable packaging without undermining their image, on the condition that the packaging is thoughtfully designed and accompanied by clear and strategic communication efforts that strengthen the brand's values and commitment to both quality and sustainability.

The results obtained offer valuable theoretical insights into sustainable luxury consumption and provide practical implications for brands seeking to balance environmental responsibility with the symbolic value expected in the high-end market.

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1. Introduction

In recent years, sustainability has become a central element in luxury brand strategies, redefining consumer expectations and shaping the market positioning of companies. Notably, the rise of sustainable packaging as a central element of high-end brand strategies prompts essential questions about the fragile balance between environmental responsibility and the preservation of brand prestige.

This thesis situates itself within this debate, aiming to investigate how sustainable packaging influences consumer perceptions in the luxury product sector. At a time when even brands historically rooted and particularly recognised for their opulence and tradition are rethinking their image through a sustainability lens, it becomes essential to understand whether, and how, such transformations are embraced by the consumers, and to what extent they affect the perceived identity of the brand.

1.1 Background

This chapter provides an overview of the industry context, analyzing emerging sustainability trends, shifts in consumer expectations, and the role of packaging in strengthening brand identity. The objective is to outline the dynamics currently shaping the market, highlighting the challenges and opportunities for brands that aim to integrate sustainable solutions without compromising the perception of luxuriousness.

1.1.1 Sustainability: From Awareness to Definition

“Humanity stands at an inflection point. Our climate is warming at a concerning pace, and if we don’t take action, the situation will only worsen,” states McKinsey's report published in 2024 (McKinsey & Company, 2024). Our planet is facing serious problems today, from the loss of biodiversity due to climate change to the degradation of critical natural resources. This represents an important and inescapable message for humankind: we must act now to improve the situation and make things better. All of us have a key role in this: “We are all part of both the problem and the solution” (Cervieri & Cervieri, 2024). Sustainability has emerged as one of the twenty-first century’s most urgent and impactful issues (Econopoly, 2024).

The awareness of the topic and its importance is also evident in the results of the most frequently searched terms on Google. Research conducted in 2024 by Mecarone and Carpentone showed that research linked to sustainability increased by 17 percent in 2023, becoming one of the most searched terms and mirroring the increase in awareness regarding sustainability. People are increasingly showing interest in sustainability-linked topics, such as ESG¹ and the 2030 Agenda², and climate change has seen a 66.3 percent increase in browse research, showing a collective engagement (Mecarone & Carpentone, 2024).

This increasing attention underscores the importance of defining sustainability and recognizing its significance. The ideas of sustainability and sustainable development are thus complex and can lead to numerous interpretations. However, according to the online site of the Italian Treccani encyclopedia, “In environmental and economic sciences, [sustainability is] a condition of development that ensures that the needs of the present generation are met without compromising the ability of future generations to meet their own needs” (Treccani, This universal definition of sustainability and sustainable development was officially recognized in 1987 in the Brundtland Report entitled ‘Our common future’, which focuses on the principles of intergenerational and intragenerational equity³ (Balocco, 2025) (Econopoly, 2024).

Nowadays, sustainability is presented as an overall concept composed of three main pillars, which are interlinked and influence one another: economic sustainability, environmental sustainability, and social sustainability. Environmental sustainability focuses on the protection of the climate, biodiversity, and natural resources. The social pillar centers its attention on equality and social justice, ensuring that everyone has equal

¹ ESG stands for environmental, social, and governance. It evaluates an organization’s environmental impact, stakeholder relationships, and leadership practices. It “takes the holistic view that *sustainability* extends beyond just environmental issues” (Peterdy, 2023).

² The 2030 Agenda for Sustainable Development, signed by 193 UN Member Countries in 2015, outlines 17 Sustainable Development Goals to be achieved by 2030 (Agenzia per la Coesione Territoriale, 2025).

³ Intergenerational equity promotes sustainable resource use for future generations, while intragenerational equity ensures fair resource distribution within the current generation (Loura, 2017).

rights and opportunities. And finally, economic sustainability refers to practices that allow long-term economic development, including, for example, the usage of sustainable materials and the purchase of local products. “Ideally, sustainability should exist at all three levels. All three aspects should be considered in as balanced a manner as possible, and compromises should be made only where necessary” (Schäfer, 2023).

Sustainability has become a focus topic mainly linked to climate change and the increased concern about the issue. The urgent need to address this problem is driving developments and changes in many companies and sectors, which are actively working to reduce carbon emissions more and more (McKinsey & Company & Global Fashion Agenda, 2020).

1.1.2 The Environmental Cost of Luxury: Emissions and Challenges of Sustainability

“The global luxury fashion market is linked to a whole host of serious environmental and human rights issues” (Stand.earth, 2023). Its contributions include high levels of carbon emissions, poor environmental commitments, deforestation, and increasing dependence on fossil fuels. Considering that luxury brands represent some of the largest companies on the planet, this has important implications for the global environment (Stand.earth, 2023).

The fashion and luxury industry, as shown by research conducted by McKinsey & Company in collaboration with the Global Fashion Agenda, contributes significantly to climate change (McKinsey & Company & Global Fashion Agenda, 2020). This research has demonstrated that the sectors produced about 4 percent of the total amount of global emissions in 2018, with a contribution of 2.1 billion metric tons of greenhouse gas (GHG) as stated in Figure 1. This amount can be compared to the yearly GHG emissions produced by the “entire economies of France, Germany, and the United Kingdom combined” (GENeco-YTL Group, 2022) and displays the fashion industry as the second most polluting industry after the oil and gas sector (McKinsey & Company & Global Fashion Agenda, 2020) (GENeco-YTL Group, 2022).

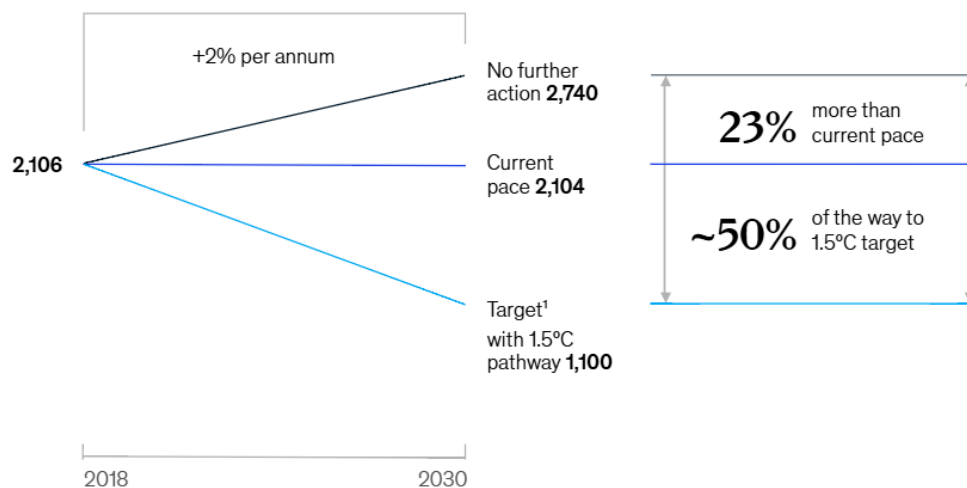


Figure 1 - Emissions Abatement Assuming the Industry Decarbonization Continues at Current Pace (million tons of CO2 equivalent) (McKinsey & Company, 2020)

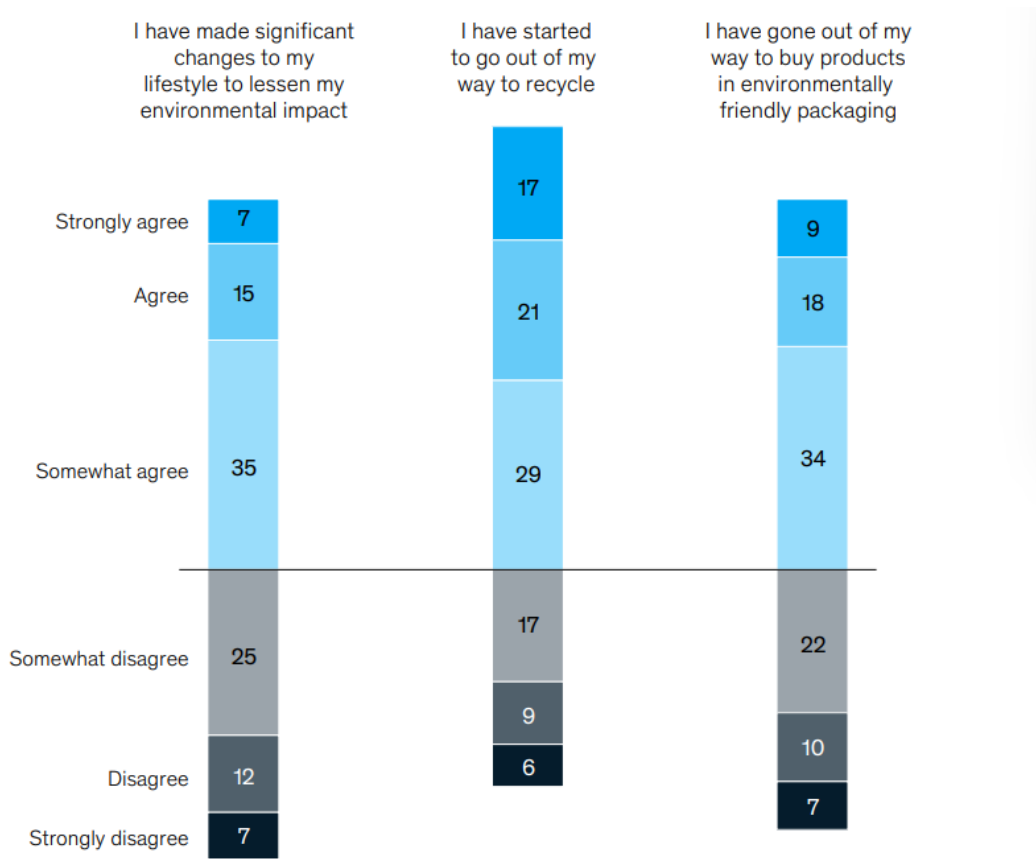
Due to lower demand, these emissions were temporarily reduced during the COVID-19 era. However, that was not enough, and the industry still needs to make big changes to reduce its carbon footprint. The industry must act fast to avoid making climate change worse. It must cut its emissions by about half before 2030 to prevent exceeding the 1.5-degree limit set by the Intergovernmental Panel on Climate Change in the 2015 Paris Agreement (McKinsey & Company & Global Fashion Agenda, 2020).

1.1.3 The Post-Pandemic Consumer: How 'Woke' Values Reshaped Luxury Buying Behavior

The pandemic, which we have been assisting with since 2019, has brought about several changes in various sectors and habits, including an acceleration of sustainability trends. Indeed, COVID-19 has offered an opportunity to companies and industries, including the luxury and fashion industries, to reshape and shift to a sustainable sourcing model and a demand-driven approach (A. Berg et al., 2020).

The COVID-19 period represented a significant turning point, leading to a profound shift in global awareness and transforming lifestyles worldwide (Figure 2). The pandemic underscored the renewed importance of sustainability for consumers, investors, and regulators alike. In fact, during the crisis, interest in sustainability rose, and now, two-thirds of apparel shoppers consider climate impact more important than before (Granskog, Laizet, et al., 2020).

More importantly, the lockdowns inspired consumers to rethink their consumption patterns, becoming more reflective of their purpose and values. This has led, now more than ever, to requirements for more sustainability and ethical behavior from corporate entities (A. Berg et al., 2020). European consumers consistently demand more from companies, including fashion players, to consider the social and environmental impacts of their operations (Granskog, Lee, et al., 2020).



¹Figures may not sum to 100%, because of rounding. Question: Thinking about your habits and attitudes over the past several weeks compared with prior to the COVID-19 crisis, to what extent do you agree with the following statements?

Figure 2 - Change in Behavior During COVID-19 Crisis (% of respondents; n=2004) (Granskog, Lee, et al., 2020)

Over the last few years, more and more consumers have taken their principles and values into account in their purchasing decisions. This change reflects a newly emerging global mindset in which billions of people use their buying power to express their values (McKinsey & Company & Business of Fashion, 2019). A quantitative analysis conducted by Confindustria⁴ on consumer sentiment on sustainability issues shows that 80 percent

⁴ Confindustria is the leading association representing manufacturing and service enterprises in Italy (Confindustria, 2025).

of respondents consider environmental and social sustainability as relevant to them (Econopoly, 2024). Therefore, sustainability is already a driver of consumer action (Frame et al., 2022).

Different studies have demonstrated that customers not only changed their habits by choosing greener and more sustainable purchases but also strengthened their commitment to sustainable purchasing choices by showing a greater willingness to pay a higher price for sustainable products.

A study conducted by PwC, entitled Consumer Insights Survey, reveals that all respondents are in “any case willing to pay a higher price for the purchase of eco-friendly products” (Econopoly, 2024). Delving deeper, 77 percent of the interviewees expressed their willingness to pay more for a locally sourced product made from recycled, eco-friendly, or sustainable materials, and 75 percent of them focused on the importance of purchases from companies known for their sustainable practices (Econopoly, 2024).

Furthermore, PricewaterhouseCoopers studied the phenomenon twice, a year earlier than PwC did, not only focusing on the willingness to pay more but also on the amount of money each of the respondents would pay more for sustainability. In the study conducted by the company in February, they got similar results to the research of PwC, with an amount of 70 percent of respondents showing their willingness to pay a higher price. The second study, conducted in June of the same year, obtained an increase of respondents willing to pay a higher price, corresponding to 8 out of 10 respondents, and it further deepened down to find out the additional amount they’re willing to pay: according to the results, “more than 4/10 say they’d pay up to 10 percent above average, 1/10 say they would go up to 30 percent, and nearly 7 percent say they would pay even higher prices” (PricewaterhouseCoopers, 2023).

Interest in sustainable practices is also high among the younger generation, including Generation Z. This generation represents the most influential consumer generation and has the most purchasing power. According to McKinsey’s article “Meet Generation Z: Shaping the Future of the Store,” this generation is making a significant impact and is transforming the shopping ecosystem. Even though Generation Z is not yet the largest segment in terms of population, this generation has already had a significant impact on

those generations that came before them, such as Millennials and Generation X. The main difference that comes out from the comparison between these generations with the previous ones, is that they don't just give importance to the quality and the price of the products they purchase, but also they care and want to be informed of what values a business has and how the business contributes to enhancing the welfare of the society (Finneman et al., 2020).

This shift is also reflected in The State of Fashion report by McKinsey & Company in collaboration with Business of Fashion (BoF)⁵. Based on the findings of the report nine out of ten Generation Z Consumers “believe companies have a responsibility to address environmental and social issues” (McKinsey & Company & Business of Fashion, 2019), and that they increasingly make their purchase choices align with their values and beliefs, they stop buying from and even boycotting brands that take the wrong stance on controversial topics (McKinsey & Company & Business of Fashion, 2019).

The increasing interest in sustainability practices shown by consumers, the laws and regulations set by governments, and the general need for change in company practices to address climate change present a significant opportunity for the fashion and luxury industry to renew its commitment to sustainability (Granskog, Lee, et al., 2020).

With increasing consumer awareness of environmental issues post-pandemic, packaging waste has become a critical concern for brands aiming to maintain sustainability commitments.

1.1.4 Packaging Waste: A Growing Environmental Challenge

“Packaging is any material used to protect, ship, or market a product on its journey from birth to buyer” (Kinejara, 2022), while packaging waste means any material that represents excess and gets thrown away, likely to end up in landfills, and consequently contributing to the pollution of our land, water, and air (Kinejara, 2022).

⁵ The Business of Fashion is an internationally recognized company for its analytical look at the fashion industry. The company's goal is to inform by publishing high-level informative content on issues related to the fashion world, offering a critical look at economic, social and cultural topics (MAM-e, 2021).

“Packaging is the dominant generator of plastic waste, responsible for almost half of the global total” (Ritchie et al., 2023). It represents a major contributor to global waste, acting by it consumes natural resources and emits a substantial amount of greenhouse gases. As Figure 3 indicates, specifically for plastic, packaging generates more waste than the next four largest industries combined (Lombard Odier, 2024).

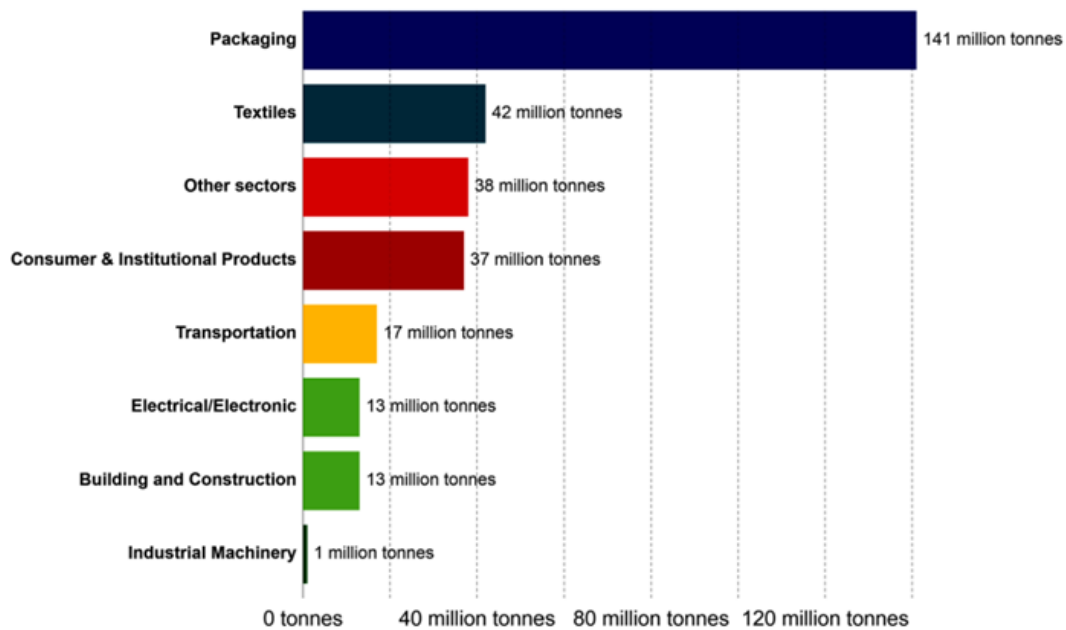


Figure 3 - Global Plastic Waste Generation by Industrial Sector (tons/year) (Egun et al., 2020)

Framing the general phenomenon in the European Union, according to data coming from Eurostat⁶, in 2021, 188.7 kg of packaging waste per inhabitant were generated, data that represents the largest increase compared to the previous 10 years, with 32 kg of packaging waste more than in 2011. The numbers continue increasing, and this is closely linked to the rise in online purchasing, home deliveries, and consumption of takeaway products we are facing nowadays (Econopoly, 2024). More specifically, in total, “the EU generated 84 million tons of packaging waste, of which 40.3 percent was paper and cardboard, 19 percent plastic, 18.5 percent glass, 17.1 percent wood, and 4.9 percent metal; in 2021, each citizen generated an average of 35.9 kg of plastic packaging waste [...]. Between 2011 and 2021, the amount of plastic packaging waste generated per capita increased by

⁶ Eurostat is “the statistical office of the European Union, independently responsible for publishing high-quality Europe-wide statistics and indicators that enable comparisons between countries and regions” (European Commission, 2025).

26.7 percent (+7.6 kg/capita), and the amount of plastic packaging waste recycled increased by 38.1 percent (+3.9 kg/capita) over the same period” (Econopoly, 2024).

Plastics are a product of human innovation, characterized by being very convenient, durable, resistant to decay, lightweight, inexpensive, and easy to mold. “Unfortunately, this innovation comes at a price” (Supply Chain Solutions Centre, 2020), and today, it represents the greatest generator of plastic pollution. The reduction of plastic packaging becomes crucial for environmental sustainability, decreasing the levels of waste, energy, and pollution, and protecting human and environmental health (Supply Chain Solutions Centre, 2020).

Various norms and regulations have been set over the years to face and address packaging waste problems. The first regulation dates back to 1994, ‘The Packaging and Packaging Waste Directive 94/62/EC (PPWD)’, a European Parliament and Council Directive. This regulation aimed to reduce the environmental impact of packaging and its waste, setting rules to reduce and recycle packaging materials to minimize their impact and promote sustainability. The present regulation has been updated several times over the years, every time focusing on different aspects such as the use of single-use plastic packaging, until requiring all packaging to be fully recyclable by 2030 (European Commission, 2025; Lombard Odier, 2024).

1.1.5 Consumer Behavior Toward Sustainable Packaging

As people become more aware of the dangerous effects of plastic, they are increasingly choosing eco-friendly and reusable alternatives. As stated before, consumers are getting “woke” about sustainability, and sustainable packaging is becoming a critical expectation overall (Dipple, 2024).

It is shown that consumers expect sustainability to be a “standard” while shopping, and they often prefer brands that show caring and commitment to the environment (Dipple, 2024). Research conducted by Econopoly in 2024 states that “54 percent of Italian citizens have opted for brands other than those normally purchased in favor of more sustainable packaging”, and that almost 20 percent of the interviewees have stopped purchasing products if their packaging is not considered environmentally friendly (Econopoly, 2024).

The same is shown by a study conducted by Granskog et al., whose results exhibit that 57 percent of consumers have changed their behaviors to reduce their environmental impact, and more than 60 percent actively try to recycle and choose products with eco-friendly packaging. Moreover, “67 percent consider the use of sustainable materials to be an important purchasing factor, and 63 percent consider a brand’s promotion of sustainability in the same way” (Granskog, Lee, et al., 2020). The packaging choice becomes then important in consumers’ purchase decision-making: according to Econopoly, 59 percent of people seem to prefer products that have less excess packaging, 58 percent focus attention on fully recyclable packaging, 46 percent care about the emissions emitted by the company and 45 percent revolve about the usage of recycled materials (Econopoly, 2024).

“It turns out fashion is no stranger to the single-use plastic problem” (Rauturier, 2022). With the rise of online purchases and the general increase in clothes and items purchased every year, as happens with the phenomenon of fast fashion, the amount of plastic that brands use to pack their articles grows every time (Rauturier, 2022). However, it is essential to note that packaging is not just a product cover for industries like luxury; it represents much more.

1.1.6 Luxury Packaging: More Than Just a Box

In today’s world, where everything runs at a fast pace, first impressions gain valuable importance. “Luxury packaging has become an essential element for brands looking to elevate their product offering and connect with consumers on a deeper level” (Fortis Solutions Group, 2024). Packaging is beyond any doubt more than just a container or a protective layer; it represents a fundamental player in shaping brand perception and consumer experience (Dipple, 2024; Fortis Solutions Group, 2024).

Over the years, luxury packaging has evolved from being used solely as a decorative element to becoming a highly effective brand promotional tool. Its function has developed throughout time to become more than just aesthetics; it now represents a physical experience that appeals to customers. Nowadays, packaging works as a strategic communication tool that tells a story, communicates the exclusivity of brands, and strengthens emotional bonds with consumers (Fortis Solutions Group, 2024).

As brands are increasingly use packaging as a narrative tool, this shift is visible across various industries. Packaging is no longer limited to just displaying logos or slogans, it now involves framing a captivating narrative that aligns with the brand's identity and its values. When consumers engage with these narratives, they experience deeper cognitive processing and an enhanced emotional connection, which leads to a more favorable brand perception (Dipple, 2024; Packaging Europe, 2024).

In the world of consumers, luxury packaging plays a central role in brand perception and creates a huge impact on consumer purchasing decisions. It embodies the brand's ambassador in the competitive consumer goods market, captivating attention and further elevating the exclusivity of a product, while communicating quality, attention to detail, and authenticity (Packaging Europe, 2024). With thoughtful designs, material choices, and flawless details, these "boxes" go over the functional aspect, becoming an extension of the brand itself (Fortis Solutions Group, 2024; Packaging Europe, 2024).

Furthermore, luxury packaging is about creating a memorable experience. From the moment consumers come into contact with luxurious packaging, they create a strong bond with the brand. This connection, created by tactility and visuality, contributes to the overall satisfaction derived from the product and often leads to future repurchases, which result from a built loyalty between the two actors. By creating an unforgettable unboxing experience, brands can attract their audience and promote long-lasting connections (Fortis Solutions Group, 2024).

Luxury product packaging does not just represent a significant aspect of the purchase for brands, but also for consumers. The act of unwrapping a luxuriously packaged product often brings the consumers' and buyers' feelings of excitement and joy, making the experience memorable and worthy of sharing (Fortis Solutions Group, 2024). Luxury consumers tend to demand that the packaging reflect the same quality as that of the product contained within (Dube, 2019). From Tiffany's trademarked little blue box to Dewar's Signature Blended Scotch Whiskey nestled in a polished wooden box with a golden latch, luxury packaging defines a lifestyle. Those who can afford to buy these products expect excellence in packaging, and research shows that many consumers are willing to pay a higher price for products if they are packaged in a high-end, visually appealing manner equal to the product inside (Dube, 2019).

It has been studied and confirmed that a significant percentage of consumers are influenced by the packaging design. Especially in the luxury sector, where aesthetics have taken on higher importance and relevance, the trend is towards sophisticated and minimalist packaging. This packaging stands out for its versatility, characterized by clean lines, soft colors, and premium finishes that reflect and express luxury and sophistication. Velvet accents and metallic refinements are widely favored by both brands and consumers and are used to produce a feeling of prestige, without detracting from the minimalistic aesthetic (Dipple, 2024).

This reflects perfectly the world's luxury profile, which has always been synonymous with elegance, opulence, and exclusivity. However, in recent years, due to pressure from the growing importance of sustainable practices and a shift in consumers' preference for sustainable products and packaging, the luxury industry has had to face challenges such as finding a balance between the image of extravagance and growing concerns about sustainable development. This marriage between luxury accents and sustainable development is complex but essential for the future of this sector (Sup de Luxe, 2024).

1.1.7 The Rise of Sustainable Luxury: Balancing Prestige and Eco-Consciousness

Sustainable luxury represents the future of the luxury industry. “It is not an eco-friendly product seeking a premium image, but instead, it is a luxury product with sustainable values“ (Corporation, 2017; Jain, 2020). It is the fusion of sustainability and conscious consumerism, and it represents the possibility for luxury brands to create sustainable businesses, which are often also associated with positive social and environmental impacts (The Bio Company, 2022).

At first glance, the terms “sustainable” and “luxury” appear as two very different words, which could also seem contradictory. “The word luxury often comes with an undertone of excess and waste and is often associated with words like couture, extravagance, and the high life,” while when we think of sustainability, we often relate it to words like environment, long term, health, or even climate change (Jain, 2020). However, Jean-Noël Kapferer, a relevant French marketing professor and author of ‘Kapferer on Luxury’, explains the connection between sustainability and luxury by saying, “Luxury is at its

essence very close to sustainable preoccupations because it is nourished by rarity and beauty and thus has an interest in preserving them” (Jain, 2020).

Sustainable luxury isn’t just a trend, but a shift in how the fashion industry operates, and it is here to stay. Being one of the industries that uses the most earth resources and has a significant impact on the environment, a move toward sustainability would undoubtedly bring improvement in this area. Indeed, high-fashion brands are often recognized and known for their opulence and attention to detail and are uniquely positioned to lead this charge, as their influence goes across the entire industry, shaping trends and consumer expectations (Retail Insider, 2024).

Sustainability luxury is when a luxury brand adopts measures to make the product sustainable, and not when an eco-friendly product tries to be recognized as a luxury product by just raising prices. Consequently, sustainable luxury items are items created taking into account their impact on the planet, human rights, and animal welfare (The Bio Company, 2022). Luxury as well as sustainability look at longevity and therefore help luxury brands differ from fast fashion (Jain, 2020). Therefore, sustainability is a key opportunity for brand differentiation (Darlington, 2021).

Sustainable luxury is rapidly becoming a priority in the luxury industry, driven by both consumer expectations regarding sustainability practices and the need for long-term resilience. As previously discussed, today’s environmentally conscious consumers are demanding ever more environmentally responsible products, pushing luxury brands to adopt sustainable solutions. Notably, this emphasis is particularly evident in the packaging of products, which must align with sustainability values (Sup de Luxe, 2024).

The shift towards a sustainable company environment and the acquisition of sustainable practices by luxury brands not only actively work in attracting consumers' approval and purchases, reducing their environmental impact, and contributing positively to local communities, but also help build a better position for achieving long-term success and surviving in the industry (Sup de Luxe, 2024). By prioritizing sustainable options, brands can appeal to conscientious consumers and demonstrate their commitment to a greener future (Fortis Solutions Group, 2024).

The market for sustainable luxury is expected to grow rapidly, at an annual growth rate of 15% through 2025 (The Bio Company, 2022). To meet and answer eco-conscious consumers' expectations regarding the production of environmentally responsible products, brands are answering by integrating sustainable materials and processes into their packaging, trying not to compromise the high-end experience that defines them (Packaging Europe, 2024).

This shift towards sustainability is prompting a surge of innovation in packaging materials and technologies. From biodegradable wraps to recycled elements, designers are exploring environmentally conscious alternatives that uphold the standard of luxury. Such efforts not only attract eco-aware consumers but also set positive benchmarks within the industry. By embracing sustainable luxury packaging, brands send a powerful message of responsibility and forward-thinking, aligning with the global movement towards environmental conservation (Fortis Solutions Group, 2024).

Sustainable packaging plays a crucial role in aligning a brand's identity with eco-conscious values. With innovations surrounding sustainable packaging, luxury brands are now able to combine environmental responsibility with exclusivity. The trend of using recycled materials, biodegradable coatings, and water-based inks for sophisticated packaging is gaining popularity, establishing that elegance can indeed be sustainable. These innovations in packaging not only provide brands with the canvas to communicate their commitment to sustainability but also retain the premium look that consumers expect from their product packaging (Packaging Europe, 2024). "The concept of sustainable luxury is still new, but its growing popularity shows no signs of slowing down" (The Bio Company, 2022).

Today, several luxury brands have already introduced sustainable changes in packaging production, adapting to the general needs.

1.1.8 Luxury Brands Leading the Way in Sustainable Packaging

As previously stated, the luxury industry is increasingly adopting sustainability, with major brands already innovating their packaging composition to reduce environmental impact while maintaining elegance and exclusivity. This chapter will show a few examples:

The beauty sector of the world's leading luxury products group, LVMH, has recently announced its plan to replace plastic containers across its cosmetics and perfume lines, opting instead for Surlyn, a bio-based material derived from waste cooking oil (Lombard Odier, 2024). Similarly, Stella McCartney has turned to a compostable bio-based alternative to plastic, known as TIPA, which offers the same performance as conventional plastic while being fully biodegradable (Lombard Odier, 2024). Also, Louis Vuitton, a principal brand of the luxury group LVMH, considers the packaging a priority, replacing 100% of its shopping bags and boxes with completely recycled ones made from responsible fibers, of which half are recycled (Birch, 2024).

Other luxury houses are also advancing their sustainability efforts. Chanel has collaborated with the US design firm Knoll to create biodegradable and recyclable packaging made from bagasse, a byproduct of sugarcane processing. The French brand Hermès has been expanding the refillable packaging options for over a decade for each consumer, while Estée Lauder Companies showed a sustainable commitment in 2020 by affirming to implement refillable packaging whenever possible (Lombard Odier, 2024).

Gucci has also made steps toward the implementation of sustainable luxury packaging. In 2020, the Italian fashion and luxury house introduced an eco-friendly packaging range in its signature green, the most frequently used color as a reference to sustainability. This initiative included the use of Forest Stewardship Council (FSC)⁷-certified paper, water-based non-toxic inks, and recycled polyester bag handles, assembled rigorously without using glue, and designed elements to show its commitment to sustainability (Lombard Odier, 2024). Another brand that presents packaging made 90% from paper certified by the Forest Stewardship Council (FSC) is Prada. Furthermore, over 61% of their packaging material consists of recycled plastic content, demonstrating their commitment to sustainable practices (Birch, 2024).

Burberry has demonstrated a consistent commitment to sustainability through various initiatives, including packaging innovations. The brands' innovatively designed packages are made of eco-friendly materials and show specific designs aimed at minimizing their

⁷ FSC is a non-profit organization, providing trusted solutions to help protect the world's forests and tackle today's deforestation, climate, and biodiversity challenges (Forest Stewardship Council, 2022).

environmental impact. The packaging used is created out of recycled and responsibly sourced materials, incorporating reusable and recyclable designs to prolong efficiency. It not only shows the company's commitment to sustainability by reducing waste and carbon emissions but also reinforces its overall strategy to reach net-zero emissions and become climate-positive by 2040. Through these efforts, Burberry leads the way in sustainable luxury fashion, setting standards for others to follow (Birch, 2024).

Moving from fashion to the technology sector, Apple Inc., the American multinational technology company considered one of the Big Tech, is also making progress in the sustainability field, incorporating more and more sustainable practices, especially regarding the packaging used. Its recent endeavors feature smaller, fiber-based, label-free packaging for the new Apple Watch and promise to enhance its delivery through 'low-carbon' transport. The company aims to achieve zero plastics and a completely decarbonized operation by 2025 and 2030, respectively. More than 96 percent of the packaging of Apple's products is made of recycled and sustainably sourced wood fiber. Partnering with the Conservation Fund and WWF, Apple manages more than 1 million acres of forestland in the US and China. This is the first such fully fiber-based Apple Watch package announced with this launch, which is more than 99% fiber-based for the iPhone 15 packaging as well. The 2030 objective looks towards a 75 percent reduction in emissions; global corporate operations are already carbon neutral as of 2020, thus showing a strong commitment to sustainability (Packaging Europe, 2023).

These efforts demonstrate how luxury brands are redefining sustainability, proving that high-end packaging can be both environmentally responsible and visually captivating. Although it has been demonstrated that the use of sustainable materials does not necessarily compromise the minimalist and refined aesthetics characteristic of luxury brands, the transition towards sustainable packaging could still lead to a perception of reduced product exclusivity and quality among consumers.

1.2 Research Objective

Companies operating in these segments face up to the challenge of integrating innovative sustainable packaging solutions, trying not to compromise the perceived value to consumers and the exclusivity of their products.

The objective of this research is to analyze the role of sustainable packaging in redefining brand perception and consumer experience within the luxury product market. Precisely, it aims to explore how consumers evaluate and react to sustainable packaging initiatives and what impact such choices may have on brand image and consumer perception of the luxury product.

The study aims to provide a detailed consideration of the dynamics at work that can influence perceptions of sustainability in a luxury context, both through an analysis of the existing literature and using an empirical investigation. The research, therefore, aims to create a picture of the challenges that brands encounter in the attempt to merge environmental responsibility with exclusivity, thus allowing further reflection on future industry strategies.

1.3 Disposition

The study begins with a first chapter that provides an overview of the theoretical and cultural background of the evolving role of sustainability, with a particular focus on the luxury industry, shifting consumer expectations, and the increasingly central role of packaging in brand value creation.

The Second Chapter presents a review of the relevant academic literature, helping to define the theoretical framework of the research and formulate the conceptual model and research question at its core.

Chapter Three provides a detailed outline of the methodology adopted for the empirical study, including the experimental design, the sample, the instruments used for data collection, and the statistical techniques employed to assess the impact of sustainable packaging on brand prestige.

Chapter Four presents the empirical findings, followed by a Fifth Chapter that offers a critical discussion of the results obtained through the empirical study.

Finally, the thesis concludes with a final chapter that summarizes key insights, presents the theoretical and managerial implications, and suggests avenues for future research, thereby opening the door to further exploration of the interplay between sustainability and luxury.

2. Literature Review

After introducing the crucial role of packaging in the luxury sector and the growing importance of sustainability in the previous chapter, it is essential to analyze existing studies to understand the dynamics already explored by academic research. The following chapter will therefore examine the literature on luxury, the impact of sustainability on its packaging, and more importantly, the consumer perceptions, to identify a research gap and formulate the study question underlying this thesis.

2.1 Understanding Luxury

2.1.1 What is Luxury?

According to Cabigiosu (2020), “luxury” is a complex concept with no unique definition, taking on “different forms and meanings in relation to the context of space and time as well as according to the perspective of the study” (Cabigiosu, 2020). Etymologically, it comes from the Latin word “luxus,” a term that indicates the overabundance and excess over the necessary, aimed at satisfying superfluous and unneeded desires (Cabigiosu, 2020). In line with this, Sombart (1967) defines luxury as any expenditure that exceeds necessity.

Historically, in the 19th century, luxury was associated with an aristocratic and artisanal model of hand production using fine materials for local markets, thereby highlighting the exclusivity of the products (Cabigiosu, 2020). Subsequently, with the Industrial Revolution and the advent of modernity, luxury underwent a radical transformation, introduced through large-scale standardized production, and laid the groundwork for today's multinationals in the industry. This evolution has made luxury more accessible, moving it “from class to mass” (J. N. Kapferer, 2015) through the processes of democratization and globalization (J.-N. Kapferer & Valette-Florence, 2016; Reddy & Han, 2017; Y. Wang, 2022).

Luxury and consumer desire have been studied by several disciplines, among which are economics, with Adam Smith and Werner Sombart, behavioral economics, sociology, anthropology, and evolutionary psychology, and it has always been linked to wealth and social status. Indeed, the possession of expensive and exclusive goods often signals well-being, success, and social standing (Y. Wang, 2022). However, consumers today seek more transparency and value consistency in luxury products and desire authentic

experiences (Brakus et al., 2009; Morhart & Malär, 2020), also using them to communicate knowledge, values, and sophistication (Y. Wang, 2022).

Constant elements of luxury remain beauty, rarity, quality, and high price, along with an inspiring brand (Godey et al., 2013; Phau & Prendergast, 2000). Brands compete on their ability to evoke exclusivity, identity, notoriety, and perceived high quality (Godey et al., 2013).

As stated by Coco Chanel: “Luxury is necessity beginning where necessity ends” (Husic-Mehmedovic & Cicic, 2007). Kapferer (2010) notes that the essence of true luxury is the sale of rare, creative, and high-quality items, which convey a sense of refined taste and elegance. Despite its expansion into mass items, the author affirms that the value of luxury lies in its objective rarity, given by the exclusive materials used and craftsmanship (J.-N. Kapferer, 2010). The author, previously in 1997, described luxury as beauty, “art applied to functional items,” emphasizing its ability to “provide sensory pleasure and flatter all senses at once” (J.-N. Kapferer, 1997; Wiedmann et al., 2009). Nonetheless, luxury products are sometimes seen as related to vanity and purchased for social distinction (Aguirre, 2020). Hence, it is possible to state that luxury is a multidimensional and evolving concept, influenced by historical, economic, social, and individual factors.

2.1.2 Luxury Brands

A luxury brand is defined by a combination of key attributes that distinguish it from non-luxury brands. Ko et al. (2016) outline five essential criteria for a luxury brand: high quality, authentic value through functional or emotional benefits, a prestigious market image built on craftsmanship and service excellence, the ability to command a premium price, and the capacity to inspire a deep consumer connection (Ko et al., 2016). Similarly, a prestige brand represents the highest level of quality and performance within its product category (Dubois & Czellar, 2002). Luxury brands are frequently associated with superior quality, exclusivity, high transaction value, and exceptional craftsmanship (T. Jackson, 2002; J. N. Kapferer, 2008; Nueno & Quelch, 1998; Radon, 2002). Jackson (2004) further emphasizes that exclusivity, premium pricing, and a strong brand image are defining elements of luxury, reinforcing the idea that luxury products hold desirability beyond their functional purpose (Fionda & Moore, 2008; T. B. Jackson, 2004). Similarly, Phau and Prendergast (2000) identify four fundamental attributes of luxury brands: the already

mentioned recognized and strong brand identity, superior quality, exclusivity, and high customer awareness (Phau & Prendergast, 2000).

Luxury brands are expected to deliver products that demonstrate quality and uniqueness while also playing a role in consumers' identity construction (Godey et al., 2013). Consumers' desire for luxury products is often driven by perceptions of extravagance and abundance, which are linked to psychological benefits such as enhancing self-image and providing status (Dubois & Duquesne, 1993; E. Y. Kim et al., 2009; Lichtenstein et al., 1993; Roux, 1991). The "luxuriousness" of a brand is not only tied to its tangible attributes but also to its ability to fulfill intangible desires, offering consumers emotional engagement that elevates their sense of exclusivity and status (Fionda & Moore, 2008).

Ultimately, the defining characteristics of luxury products align closely with those of luxury brands. Heine (2012) encapsulates this by describing luxury brands as consumer perceptions shaped by associations with high price, superior quality, aesthetics, rarity, and extraordinary appeal, extending beyond mere functional benefits (Heine, 2012).

2.1.3 The Luxury Market

The global expansion of the luxury market has sparked increasing academic interest. With sales surpassing \$1 trillion in 2014, the sector encompasses a wide range of product categories and has seen its consumer base triple over the past two decades. By 2020, it was predicted that the number of luxury consumers worldwide would have reached 400 million (D'Arpizio, 2014). A major driving force behind this growth has been the extraordinary rise in luxury spending in several Asian markets (A. Shukla et al., 2023).

The fashion industry, a significant segment of the luxury market, employs over 75 million people around the globe and has a value of more than \$2.5 trillion. The sector has experienced rapid expansion, since the apparel production doubled between 2000 and 2014. However, this growth has also led to an increase in environmental concerns. Despite a 60% rise in clothing purchases from 2000 to 2014, consumers wore garments for only half as long, highlighting the industry's role in accelerating waste generation and sustainability challenges (A. Shukla et al., 2023).

2.1.4 Luxury Consumption

A growing body of research has significantly enhanced the conventional understanding of luxury consumption, highlighting that it is shaped by two key orientations: social and personal (Tsai, 2005; Vigneron & Johnson, 1999, 2004; Wiedmann et al., 2009; Wong & Ahuvia, 1998). While the desire for status, along with social recognition, remains an important driver, it has been shown that personal motivations, such as the pursuit of pleasure, self-expression, and symbolic value, are equally influential (Dubois et al., 2001; Godey et al., 2013; J.-N. Kapferer, 1997, 1998; Vigneron & Johnson, 1999, 2004).

There is a high preference for luxury brands due to the symbolic benefits and hedonic experiences they offer. Consumers motivated mainly by personal motives are particularly focused on identifying with the product, enjoying the experience it offers, and aligning their personal tastes with the brand's image (P. Shukla, 2011; Wong & Ahuvia, 1998). These consumers prioritize the hedonistic value and self-awareness over the social expectations typically associated with consumption (Celik & Ercis, 2018; P. Shukla, 2011; Tsai, 2005). This position stems from the idea that consumers typically purchase luxury goods to acquire something excellent, beautiful, exclusive, and often unique, which in turn makes them feel unique too (Amatulli et al., 2020; Dubois & Czellar, 2002; Jain et al., et al., 2010).

Social validation indeed plays a fundamental role in luxury consumption. Balconi et al. (2019) highlight that purchasing luxury goods satisfies the deep need for status (Balconi et al., 2019). This consequently encourages large personal happiness and satisfaction. For example, perceived quality and social influences considerably drive purchase intentions and behavior among Generation Y consumers (Soh et al., 2017).

The important antecedents of luxury brand purchase intention have been extensively examined in research by Berthon et al. (2009), Tsai (2005), and Vigneron & Johnson (2004). Berthon et al. (2009) propose such a framework, dividing luxury brand value into functional, experiential, and symbolic dimensions. Functional value relates to natural quality and prominent performance, experiential value to hedonic experiences, and finally, symbolic value relates to social signaling (O'Cass, 2004). Vigneron & Johnson (1999) identified the Veblen Effect, linked to the conspicuous value, the Snob Effect,

related to the value of uniqueness, the Bandwagon Effect, connected to perceived social value, the Hedonic Effect, linked to perceived emotional value, and finally the Perfectionism Effect, associated to perceived quality value. These effects explain the patterns of luxury consumption, where personal satisfaction aligns with social recognition (Berthon et al., 2009; Husic-Mehmedovic & Cicic, 2007; Tsai, 2005; Vigneron & Johnson, 1999).

Ultimately, luxury consumption is a complex experience encompassing functional, emotional, and social dimensions (Hennigs et al., 2015). As Wiedmann et al. (2009) note, luxury goods create value not only for individual consumers but also for their social circles, emphasizing the importance of both personal fulfillment and social signaling (Wiedmann et al., 2009).

2.1.5 Perception Of Luxury Value

The perception of luxury is a multifaceted concept that incorporates both conspicuous, status-oriented elements and hedonistic, emotional dimensions (Godey et al., 2013). Cross-cultural differences in these perceptions are evident, although they are not solely determined by the level of maturity in luxury marketing in each country. These differences also manifest within the most developed markets, indicating that the perception of luxury is influenced by a variety of factors beyond marketing maturity (Godey et al., 2013).

Research has shown that young people's perceptions of luxury align with both ostentatious consumption and hedonistic consumption theories, although cross-country variations exist. Respondents place particular importance on elements such as “exclusivity,” “prestige,” and “elite,” with “desirable” ranking fifth in the list of characteristics (Godey et al., 2013). Despite the lack of a universal definition of luxury, there is consensus that consumers are drawn to attributes such as “beauty,” “rarity,” “quality,” and “price,” all supported by an “inspirational brand” (Godey et al., 2013).

The definitions of luxury commonly highlight expensiveness, quality, and exclusivity as the primary associations. Other essential elements include uniqueness, desire, and dream, while price and cost are less central to the definition. Adjectives such as “sophisticated,” “extravagant,” and “excess” are linked to the more ostentatious dimensions of luxury

(Godey et al., 2013). Analysis previously conducted by Godey et al. (2013) by country revealed a more complex picture than anticipated. For instance, Italian, German, and US respondents rated “exclusivity” as the most essential attribute of luxury, indicating a well-stratified perception of luxury. In contrast, French respondents emphasized prestige, expensiveness, and elitism, suggesting a more traditional view of luxury. Japanese students primarily associate luxury with expensiveness, while Chinese respondents focus on prestige, extravagance, and conspicuousness (Godey et al., 2013).

Kapferer (1997) proposes an experiential approach to luxury, arguing that luxury items offer extra pleasure by stimulating all the senses. Phau and Prendergast (1999) emphasize the exclusivity aspect of luxury, asserting that luxury brands compete by evoking selectiveness, which is closely linked to perceived quality (Chattalas & Shukla, 2015; J.-N. Kapferer, 1997; Phau & Prendergast, 2000).

2.1.6 Prestige: A Pillar of Luxury Identity

Prestige, a key concept in social stratification, is closely linked to an individual's social standing, as defined by Weber (1946) through the three P's: property, power, and prestige. In the context of luxury consumption, prestige refers to the respect and admiration accorded to individuals or products due to their perceived qualities or achievements, and is socially constructed, not inherent in the objects themselves (Heine et al., 2016). Unlike other species, where dominance determines social standing, humans gain prestige through symbolic means, highlighting their evolutionary importance (Heine et al., 2016).

While luxury goods are often sought to display wealth and success, not all consumers are motivated by these desires when purchasing luxury products (Kastanakis & Balabanis, 2012; Lyons, 2018). This ties into the “Prestige-Seeking Consumer Behavior” (PSCB) framework developed by Vigneron & Johnson (1999), which underscores how luxury goods fulfill desires for self-image enhancement and social prestige (Roux, 1991). Brand prestige plays a critical role in influencing consumers' purchase intentions. Research indicates that prestige, when combined with perceived quality and brand credibility, positively affects consumers' decisions to purchase high-self-expressive products. Prestige signals serve as markers of social and self-image enhancement, reinforcing the desire for luxury goods (Baek et al., 2010).

2.2 Redefining Luxury: The Role of Sustainability

2.2.1 *Consumers Call for Greener Practices*

As analysed in the background, in recent years, consumer awareness about sustainability, CSR, and ethical consumption has grown, prompting businesses to integrate these values and pay more attention to corporate social responsibility practices to enhance their brand image and competitiveness (Grazzini et al., 2020; Sheth & Apte, 2016).

Sustainable consumption, as defined by Roman et al. (2015), extends beyond meeting basic needs, aiming to preserve resources for future generations (Plakas, 2023; Roman et al., 2015). Research shows consumers favour sustainable packaging, influencing purchase decisions and willingness to pay (Martinho et al., 2015; Prakash & Pathak, 2017). Consumers are hence increasingly interested in sustainable products (Vatamanescu et al., 2021). According to Suki (2017), consumers often prefer eco-friendly products because that helps increase their human need satisfactions and self-reflection, and adds that “when a customer is satisfied with the sustainability of a product or service, they are more likely to be emotionally invested in it, which can lead to increased profits” (Suki, 2016; H. Wang et al., 2019).

Consumers’ growing demand for sustainable products is increasing, especially among younger generations (Steenis et al., 2017; Vatamanescu et al., 2021). “Generation Zs express a very keen interest in social responsibility”, being aware of the consequences their actual actions could have on future generations (Dabija & Marcel, 2013; Plakas, 2023). Moreover, they state that they are skilled enough to find out about the materials used in the production and their traceability (Plakas, 2023; Vatamanescu et al., 2021). As proof of this statement, a study conducted by Mok et al. (2022) highlighted how Generation Z’s focus on environmental impact and social responsibility is expanding (Mok et al., 2022; Plakas, 2023), and this present need for this generation is pushing businesses to invest in eco-friendly solutions (Steenis et al., 2017; Vatamanescu et al., 2021).

Due to changing consumer demand, companies are adopting sustainable solutions for their products, packaging materials, and waste management, investing more in the development and sourcing of sustainable products (Forcadell et al., 2020; Kumar et al.,

2020). Customers are therefore more likely to purchase from brands that prioritize sustainability and social responsibility. Companies that fail to look after these values may deal with reputational risks, which could directly and negatively impact consumer preference for the brand (Vatamanescu et al., 2021). Additionally, results of studies show and confirm this attitude of ethical consumers to boycott and punish those companies that “ignore the importance of social and environmental excellence” (Barnett et al., 2005; Hennigs et al., 2017).

Differently, the implementation and prioritization of sustainable practices can gain a positive reputation, long-term survival, and especially a competitive advantage, especially if their environmental interest is genuine and meaningful to them (Boz et al., 2020; Plakas, 2023; Vatamanescu et al., 2021). This competitive advantage is also highlighted by Mok et al. in 2022, explaining the importance of sustainability for businesses seeking to remain competitive in today's market (Mok et al., 2022; Moser, 2016). This rising consumer awareness about sustainability has spread around different sectors, influencing the luxury industry as well, particularly concerning materials and production processes (Moisander, 2007). According to Bernard Arnault, Chairman and CEO of LVMH, “Our clients are more and more sensitive to the fact [that] the products they consume should respect the environment; our partners and clients are very attached to this aspect, and it seemed logical to make a shift and talk about it a little more,” confirming this movement to sustainable practices, even in a sector which has never been associated to such practices before (White, 2017).

Hennigs et al. (2017) highlight that consumers are increasingly expecting luxury brands to act responsibly by adopting sustainable and ethical practices, believing in the special responsibility to integrate sustainability throughout their entire value chain of luxury companies, particularly known for setting trends and making high profits. Their influence and resources have the power to drive positive environmental and social change (Hennigs et al., 2017). The rising demand for sustainable brands and products, particularly in the luxury sector, has led to the emergence of sustainable luxury.

2.2.2 Sustainable Luxury

“In the modern fashion industry, sustainable luxury is one of the most frequently used terms” (A. Shukla et al., 2023). The concept of sustainable luxury and fashion has evolved

beyond being a mere trend into a significant and growing part of the fashion industry's evolution, driven by both consumer demand and the urgent need for companies to address environmental and social concerns (Khandual & Pradhan, 2018). It has evolved from being merely a “nice-to-have” to an actual requirement, both within and outside the luxury industry (Keinan et al., 2020). Already in 2010, Kapferer was highlighting that “to remain a leader versus mass-goods and fashion, luxury will have to be sustainable in social, economic and ecological terms,” and on top of that, this discussion was expanded in 2016 by Ramchandani and co-authors, who stated that the adoption of a sustainable mentality by companies is not an option but rather required (J.-N. Kapferer, 2010; Ramchandani et al., 2016).

In recent years, luxury fashion brands have responded to this shift by increasingly embracing sustainable techniques and integrating sustainability into their core values and business strategies (Aditi & Ragini, 2021; A. Shukla et al., 2023). They are becoming aware of the importance of sustainability strategies to address environmental issues as the climate change, and are acting by integrating sustainable technologies to create sustainable products and enhance the environmental aspect (Joy, 2012; Kooli, 2024). Sustainability in the fashion sector encompasses a broad spectrum, including eco-friendly materials, ethical manufacturing practices, and the reduction of waste throughout the product life cycle (Khandual & Pradhan, 2018).

For luxury brands, this shift represents a profound transformation, as these companies balance their long-standing reputation for exclusivity and quality with the need to remain environmentally and socially responsible. Fashion consumers, particularly those in the luxury market, now prioritize not only the aesthetic appeal and craftsmanship of products but also their environmental and social impact (Aditi & Ragini, 2021; A. Shukla et al., 2023). Consumers started to feel the need to feel great about what they purchase, and that “includes feeling great about the socially responsible manufacturing practices used to create them” (A. Shukla et al., 2023). As a result, the demand for sustainable luxury products has surged, challenging brands to innovate and redefine what luxury means in the 21st century.

Sustainability in luxury fashion brands extends beyond mere marketing tactics; it reflects a fundamental rethinking of business operations, including sourcing, manufacturing, and

distribution (J.-N. Kapferer, 2010). The important responsibility of each of the actors playing in the value chain is stressed, and it is needed to ensure that the environment doesn't get harmed over the entire cycle of production and consumption (A. Shukla et al., 2023).

Many high-end brands now focus on circularity, meaning they design products with the intention of reusing, repairing, and recycling materials (J.-N. Kapferer & Michaut-Denizeau, 2019). Luxury brands are uniquely positioned to lead this transformation due to their ability to emphasize quality, durability, and long-lasting appeal. This gives them an edge in promoting products that, although higher priced, can be seen as environmentally responsible investments due to their longevity (Gibson & Seibold, 2013). Moreover, the growing emphasis on ethical practices and fair trade has prompted some luxury brands to adopt more transparent supply chains, enabling consumers to understand the origins of their products (Bhandari et al., 2022). Furthermore, the adoption of sustainable luxury helps increase consumer loyalty, especially when the quality of a product is emphasized (J.-N. Kapferer & Michaut, 2013).

2.2.3 Sustainable Luxury Products

Sustainable luxury products are premium-priced items that use environmentally friendly materials while adhering to socially responsible business practices, representing a unique purchase decision where consumers integrate potentially conflicting signals (Osburg et al., 2024). These products aim to minimize their environmental impact throughout their entire life cycle, aligning closely with the concept of eco-friendliness (Moisander, 2007).

The connection between luxury and sustainability centers on shared values of quality and durability (Amatulli et al., 2017b). Eco-friendly products embody sustainability by minimizing negative impacts and maximizing positive outcomes, promoting ecological, social, and cultural balance. These characteristics create a motivationally meaningful point of difference for luxury brands, enhancing emotional connections with consumers and building strong brand identities (Gibson & Seibold, 2013). As stated by De Angelis et al. (2016), luxury brands prioritizing eco-conscious design demonstrate that luxury can be both “gold and green” (De Angelis et al., 2016).

However, integrating sustainability into luxury poses challenges. Perceptions of reduced functionality in sustainable products can deter consumers (Luchs et al., 2010; Steenis et al., 2017). The industry faces, in particular, the challenge of preserving luxury identity while adopting sustainable practices. This holistic approach balances environmental, social, and economic factors (Kooli, 2024).

2.2.4 The Sustainable-Luxury-Paradox

Recent academic studies have explored the debate on the implementation of sustainability in the luxury sector and, in particular, the compatibility between the two concepts (Dekhili & Achabou, 2016; Godey et al., 2013; J.-N. Kapferer & Michaut, 2013). The findings appear to be inconsistent, with multiple points of view and considerations. In fact, concerning the luxury industry, the two concepts appear at first glance in a contrasting relationship.

Luxury is indeed often associated with extravagance, superficiality, and indulgence. It is characterized by conspicuousness, perfection, and inessentiality (Wilcox et al., 2009; Berry, 1994). Not coincidentally, the word “luxus” means excess, a concept completely opposite to what sustainability displays (Cervellon & Shammass, 2013; Dekhili & Achabou, 2016; Hennigs et al., 2017; Voyer & Beckham, 2014). Luxury industries have also often been accused of draining rare resources and creating social inequalities, and criticized for “risky working conditions, local river pollution, deforestation, sourcing of blood diamonds and the use of hazardous chemicals that negatively impact corporate reputation and brand image” (Hennigs et al., 2017; J.-N. Kapferer & Michaut, 2015; Sarasin, 2012). All these traits may potentially conflict with sustainability, which “addresses responsible consumption, social justice and the protection of natural resources”, evoking altruism, sobriety, and moderation (Pascaud, 2011).

On the other hand, there is an opposing vision of the whole situation, where authors consider sustainability as part of the luxury essence, with many points of convergence (Hennigs et al., 2013; J.-N. Kapferer, 2010). According to different studies, “luxury is the industry of excellence that prefers quality to quantity, preserves the most talented craftsmen, heritage, defends the local production against delocalization,” differently from what is carried out by fast fashion, focused on mass production in low-wage countries. Last but not least: luxury products are made to last forever. One of the characteristics that

distinguishes luxury from other goods production industries is durability (Guercini & Ranfagni, 2013; Carcano, 2013). Luxury is, in fact, the industry of long-term value, the opposite of organized waste, with long-lasting products that are more likely to have a second life in secondhand markets than other goods (Godart & Seong, 2014; Guercini & Ranfagni, 2013). More precisely, luxury brands encourage moderate consumption and contribute to environmental protection through the reasonable use of natural resources (Murat & Lochard, 2011).

Furthermore, a study published by (Guercini & Ranfagni, 2013) affirms that luxury brands can “in many cases be considered as inherently more sustainable than mass market brands, essentially because they have a higher potential to do good for employees, environment, economy, community in which they are located and society at large” (Amatulli et al., 2017b; Donato et al., 2019). So, while corporate social responsibility practices have often been perceived as incompatible with luxury (Achabou & Dekhili, 2013; Davies et al., 2012), recent studies could show that those two concepts can coexist, “enhancing perceived brand value if aligned with market expectations” (Amatulli et al., 2018a; Janssen et al., 2016).

According to Kapferer and Michaut (2015), luxury consumers believe that high-end brands have a duty to be sustainable. However, Han et al. (2017) point out that these same consumers tend not to buy sustainable fashion products (Han et al., 2017; J.-N. Kapferer & Michaut, 2015). This phenomenon, described as the ‘30:3’ by Cowe and Williams (2000), highlights that although 30% of consumers say they want to buy ethical products, only a small niche of 3% actually buy them (Cowe & Williams, 2000).

Ehrich and Irwin (2005) also observe that although consumers claim to care about sustainability when shopping, they tend to ignore it deliberately, and Balconi et al. (2019) point out that consumers may react negatively to sustainable luxury products due to the perceived incompatibility between luxury and sustainability, deeming these products to lack prestige (Achabou & Dekhili, 2013; Balconi et al., 2019; Davies et al., 2012; Ehrich & Irwin, 2005; Ki & Kim, 2016; Osburg et al., 2024). This perspective is explained by Festinger's ‘coherence theory’ (1957), which states that when two cognitions are inconsistent, people are motivated to change their behavior to act in a manner consistent with their beliefs and values (Dekhili et al., 2019).

However, the perception of contradiction is reduced for those consumers who define luxury as extreme quality (J.-N. Kapferer & Michaut, 2015). In fact, studies such as that of Amatulli et al. (2017b) and Balconi et al. (2019) see a shift in perspective, stating that consumers no longer perceive sustainability as an opposition to beauty and elegance, but seek high-quality products and societal benefits (Amatulli et al., 2017b; Balconi et al., 2019). Khan and Fatma (2023) and Tran Vu Ngoc (2023) demonstrate that the perception of sustainability has a direct effect on consumer loyalty and trust, as well as an indirect effect through customer engagement (Gonzalez et al., 2007; Tran Vu Ngoc, 2023).

2.3 Packaging in Luxury and Sustainability

2.3.1 The Important Role of Packaging

Packaging is a crucial element in the goods industry, as it plays different relevant and effective roles. According to Gonzalez (2007), packaging's primary function is protection: it represents a shield capable of protecting the inner product from potential damages that could occur during the transportation phase, storage, and selling (Gonzalez et al., 2007).

However, packaging is no longer viewed only for its logistic and preservation function anymore, and it has evolved into a "key marketing tool" (Krishna et al., 2017), an "important ingredient for marketing purposes" (Gonzalez et al., 2007 Ahmad et al., 2012 Rundh, 2011 Benjamin, 2018; Ilich & Hardey, 2020; Krishna et al., 2017). It serves as a "silent salesman" (G. Berg & Tarig, 2019). According to Ampuero-Canellas & Vila (2006) three-quarters of consumers, purchasing decisions are made at the point of sale, and packaging plays a role in encouraging or sometimes discouraging consumers from buying a product, especially when a consumer is choosing between a large number of similar product types (Ahmad et al., 2012 Ampuero-Canellas & Vila, 2006). In order to be purchased, "it has to be noticed on the shelves" (Cottrell, 2016). Therefore, packaging gives a competitive advantage to differentiate from other brands (Rundh, 2016; Hayek, 2021; Ahmad et al., 2012). Another central responsibility is to attract and retain consumer attention by enhancing the appeal of a product and consequently creating a desire (Rundh, 2011; Rundh, 2016; Hayek, 2021; Cottrell, 2016; Hillier et al., 2017; Mohamed et al., 2018). It represents a strong communication tool (G. Berg & Tarig, 2019; Gonzalez et al., 2007; Sogn-Grundvåg & Østli, 2009; Underwood & Klein, 2002).

Research on packaging has also shown that different packaging aspects affect how consumers perceive a product, among which are the aesthetics, colours, functionality, brand alignment, shape, and innovativeness, consequently affecting the buying decision (Al-Samarraie et al., 2019; Hayek, 2021). Holistic packaging design can impact consumers' evaluation and judgment of the overall excellence or superiority of a product (Anselmsson et al., 2014) and plays a significant role in serving both quality and aesthetics, impacting the willingness of consumers to pay for a product (Marozzo et al., 2020; Belozertseva, 2024; Y. Wang & Heitmeyer, 2006).

2.3.2 Sustainable Packaging

Sustainable packaging, also known as ‘green packaging’, ‘eco-green packaging’, ‘eco-friendly packaging’, or ‘recyclable packaging’, is a relatively new emerging area of interest that in recent years has attracted much attention from scholars and researchers around the world (Wandosell et al., 2021). Although this interest, “eco-friendly packaging has never been a clear concept in the consumer behavior literature,” yet (Magnier & Crié, 2015). It is no longer possible to consider it a secondary feature, but rather a driving force behind many purchasing decisions, as consumers, as seen in the previous chapters, become increasingly aware of its environmental and social impacts (Belozertseva, 2024). It is worth highlighting that companies are not only encouraged to promote sustainable packaging by the increasing importance that consumers place on the environment, but also “by new laws, regulations, taxation, and other actions promoted by governments to make packaging sustainable and environmentally friendly” (Wandosell et al., 2021). This push by both players underscores how fundamental it is for firms to innovate and try to address sustainability, especially with regard to the design, trying not to compromise expectations, and showing environmental commitment (Belozertseva, 2024).

“Eco-friendly packaging has great potential to contribute to sustainable development”, and preferring it represents an easy way to lower one’s environmental impact (Lindh et al., 2016; Wikström et al., 2018; Bjorklund, 2020). Research suggests that packaging attributes, both visual and functional, can significantly influence consumers' sustainable behaviours. Visual elements such as labels, colours, and imagery, along with functional qualities like recyclability, play a key role in shaping these behaviours (Elkhattat & Medhat, 2021; Magnier & Schoormans, 2015). According to Lau and Wong (2024), when consumers are drawn to visually appealing designs and provided with clear sustainability

information, such as instructions on how to recycle, the effectiveness of sustainable packaging adoption increases (Lau & Wong, 2024).

From the consumer perspective, sustainable packaging is often defined by design features that communicate environmental friendliness. As highlighted by Magnier and Crié (2015), these features can include structural cues, such as material choices, reduced packaging, or recyclability, as well as graphical and informational cues, including eco-labels, nature-inspired imagery, and sustainability claims (Magnier & Crié, 2015). Tran Vu Ngoc's 2023 review further emphasizes that colours like brown, symbols such as trees or leaves, and certifications like the FSC logo strongly shape consumer perceptions of sustainability (Tran Vu Ngoc, 2023). Green, in particular, is widely associated with the concept of eco-friendliness (Lim et al., 2020).

Therefore, brands considering a shift to eco-friendly packaging are strongly encouraged to prioritize sustainability, especially since many consumers are willing to pay more for environmentally responsible options. By adopting eco-friendly materials and innovative design, companies can not only gain consumer trust and enhance their reputation but also attract environmentally conscious customers. This approach helps businesses maintain a competitive edge in an evolving market (Belozertseva, 2024).

2.3.3 Luxury Packaging

An important part of luxury marketing is product packaging, a strong communication tool for the industry (Babic & Charpin, 2023; Fionda & Moore, 2008; Heine, 2012). Indeed, luxury brands use packaging to show their values and convey prestige, using specific cues, such as color, packaging shape, brand name, and logo design, in order to signal a premium and luxury image to the consumer (Bottomley, 2006; Lyons, 2018). Over time, “packaging importance has risen and certain materials and shapes have been associated with luxury in customers’ eyes” (Aguirre, 2020; Koetting, 2017).

Luxury packaging reflects the general profile of luxury; it is characterized by extravagance and associated with the idea of excess (Aguirre, 2020). As an example, a study conducted by Sung et al. (2020) showed that “as packaging layers grew, more luxurious ratings increased on perceived luxuriousness, willingness to pay, and attitude toward the product” (Babic & Charpin, 2023; Sung et al., 2020). Luxury packaging is

often associated with excess volume and weight, with heavy packages considered more luxurious. An example is cosmetics packaging, which often appears big, heavy, and uses complex materials such as metalized plastic to get a nice shiny aspect, needed to attract consumers' attention (Aguirre, 2020). Kapferer and Laurent (2016) said, "a consumer's own perception of luxury price increases by how immersed they are in luxury". Consumers often use packaging to signal their status and feel elevated in status through their possessions, apart from being appealing for the design, it represents a reflection of themselves (Ko et al., 2016; Shahid & Paul, 2021; Vigneron & Johnson, 2004).

As previously seen, packaging in general, and luxury packaging in particular, often carries a negative image regarding its environmental impact. Once used, the packaging is thrown away, and this represents the reason why it is mainly associated with waste, overconsumption, and toxicity. However, this packaging, aside from protecting and transporting the product, serves additional functions to promote, distinguish, and facilitate product use. Thus, there is a growing interest in creating more sustainable packaging, especially in the luxury sector (Aguirre, 2020).

2.3.4 Sustainable Luxury Packaging

The adoption of sustainable packaging in the luxury sector remains a complex challenge, characterized by tensions between exclusivity and environmental responsibility. While sustainability has gained traction in other industries, Alevizou (2022) notes that luxury beauty brands, in particular, have been slower to embrace eco-friendly packaging solutions. This mistrust arises partly from consumer attitudes, which often prioritize prestige and aesthetics over environmental concerns (Alevizou, 2022; Davies et al., 2012; Griskevicius et al., 2010). Kapferer and Michaut (2015) further highlight the inherent contradiction between luxury's association with indulgence and sustainability's emphasis on restraint and ethical stewardship (J.-N. Kapferer & Michaut, 2015).

When it comes to packaging, luxury brands face a delicate balancing act. On one hand, sustainable materials and minimalist designs can enhance a product's eco-friendly appeal. On the other hand, excessive or opulent packaging, traditionally used to convey exclusivity, may undermine sustainability perceptions (Belozertseva, 2024). Consumer research underscores this dilemma. Studies by Henninger et al. (2017) and Mathur et al. (2019) reveal that sustainability features in luxury goods can sometimes reduce perceived

desirability, with Beckham and Voyer (2014) noting potential negative impacts on perceived quality (Hennigs et al., 2017; Mathur, 2019; Voyer & Beckham, 2014). However, not all sustainable packaging elements face equal resistance. Achabou and Dekhili (2013) and Tran Vu Ngoc (2023) found that while consumers may reject recycled materials in products themselves, recycled packaging is often more acceptable (Achabou & Dekhili, 2013; Tran Vu Ngoc, 2023).

Strategic design choices can help bridge this gap. Color plays a crucial role: while green is commonly associated with sustainability, Belozertseva (2024) suggests that white, blue, and earth tones may be even more effective in conveying eco-friendliness without sacrificing luxury appeal (Belozertseva, 2024). Additionally, Enlund and Nilsson (2021) emphasize that optimizing packaging size and material efficiency can significantly reduce environmental impact, a principle applicable to luxury fashion, where Plakas (2023) highlights the growing potential for sustainable packaging innovation (Plakas, 2023).

2.4 Impact of Sustainability on Luxury Consumers' Perceptions

The perception of sustainable luxury among consumers, particularly millennials, has become a key area of research in understanding how eco-conscious practices influence brand image and purchase intentions. According to Rolling and Sadachar (2018), luxury brands that incorporate sustainable practices, such as reusing materials, are still perceived as luxurious by millennials, leading to favorable attitudes and significant purchase intent (Rolling & Sadachar, 2018). Their findings suggest that recycled materials do not diminish the perceived luxury of a brand, indicating that sustainability and luxury are not seen as contradictory by this consumer segment. Millennials' whole impression of luxury remains intact even when sustainable elements are introduced, reinforcing the idea that sustainable efforts can enhance a brand's appeal without compromising its exclusivity (Rolling & Sadachar, 2018).

However, Rolling and Sadachar (2018) acknowledge a limitation in their study, noting that their research focused solely on Gucci, a well-established luxury brand with a strong existing reputation. This raises the question of whether newer or less dominant luxury brands can achieve the same results when incorporating sustainability into their messaging (Rolling & Sadachar, 2018). Building on these insights, Amatulli, De Angelis,

and Donato (2020) suggest that promoting a luxury product as sustainable, rather than merely high-quality, can enhance consumers' purchase propensity. They argue that sustainability-focused messaging is perceived as atypical for luxury brands, which enhances the product's uniqueness and, in turn, strengthens consumer desire. This perspective offers a novel theoretical explanation for the positive reception of sustainable luxury, suggesting that deviation from traditional luxury narratives can create a competitive advantage (Amatulli et al., 2020). Taken together, these studies demonstrate that sustainability does not detract from the allure of luxury. Instead, it can enhance brand perception and drive consumer interest. While established brands like Gucci may seamlessly integrate recycled materials without risking their luxury image, newer brands could leverage sustainability as a differentiating factor to attract uniqueness-seeking consumers.

However, the relationship between sustainability and luxury is not universally positive. While some studies highlight millennials' acceptance of recycled materials in luxury goods, others reveal resistance among traditional luxury consumers. Achabou and Dekhili (2013) take this argument further, asserting that sustainability can diminish the desirability of luxury goods (Achabou & Dekhili, 2013). Their research reveals a paradox: although consumers acknowledge the environmental benefits of recycling, they reject recycled materials in luxury products, associating them with a loss of exclusivity and prestige. This dissonance stems from the fundamental luxury principles of rarity and craftsmanship (Catry, 2003, 2007). Luxury consumers often perceive sustainable practices as incompatible with the notion of "consuming less but better," a philosophy central to high-end goods (Widlöcher, 2010). Notably, this resistance does not stem from concerns about quality or health risks but rather from the belief that recycling undermines the scarcity that defines luxury (Achabou & Dekhili, 2013).

Al-Issa et al. (2024) provide empirical support for this trade-off, demonstrating that while sustainability enhances perceptions of luxury quality and durability, it simultaneously erodes hedonic and social values, such as pleasure, self-expression, uniqueness, and social conformity, characteristics traditionally associated with luxury consumption. This dual effect underscores the complexity of integrating sustainability into luxury: even when eco-conscious practices improve functional attributes, they may weaken the

emotional and status-driven appeal that defines the luxury experience (Al-Issa et al., 2024). These findings are reinforced by Wang et al. (2021), who demonstrate that the inclusion of recycled materials in luxury products significantly reduces consumer preferences (P. Wang et al., 2021a). Their study aligns with Achabou and Dekhili's (2013) observation that regular luxury buyers, such as Hermès clientele, reject recycled cotton due to its perceived lack of rarity (Achabou & Dekhili, 2013). This suggests that sustainability initiatives may inadvertently dilute the very attributes, such as scarcity, prestige, and status, that drive luxury consumption (P. Wang et al., 2021b).

Further complicating the matter, Voyer and Beckham (2014) and Davies et al. (2012) argue that luxury consumers often equate unsustainability with higher status, associating traditional, resource-intensive production methods with superior craftsmanship and exclusivity (Amatulli et al., 2020; Davies et al., 2012; Voyer & Beckham, 2014). This “fallacy of clean luxury” implies that sustainability efforts might conflict with deeply ingrained perceptions of what makes a product truly luxurious (Davies et al., 2012).

2.5 Conceptual Framework and Research Question

While existing research explores the impact that sustainability has on consumers' perceived value of products in the luxury industry, little research examines whether and how sustainable packaging specifically influences the perceived prestige of a luxury product.

This study aims to fill that gap, with the following research question:

“How does the appearance of packaging (sustainable-looking vs. luxurious-looking) influence the perception of brand prestige in the luxury sector?”

2.5.1 Model and Hypothesis

To address the research question, the following model is the most appropriate approach to introduce. This model incorporates three variables: an Independent Variable (IV), a Dependent Variable (DV), and a Mediator (M).

The Independent Variable (IV), ‘Packaging Appearance’, is represented by two distinct levels: *Luxurious-Looking Packaging* and *Sustainable-Looking Packaging*. The Dependent Variable (DV) will measure the respondents ‘Perception of Prestige’ toward

the product based on the manipulation presented. Finally, the Mediation Variable (M) ‘Perceived Status Communication’ captures the psychological process through which the packaging design conveys symbolic social information about the owner's position in relevant status hierarchies, thereby explaining the relationship between packaging appearance and perception of prestige.

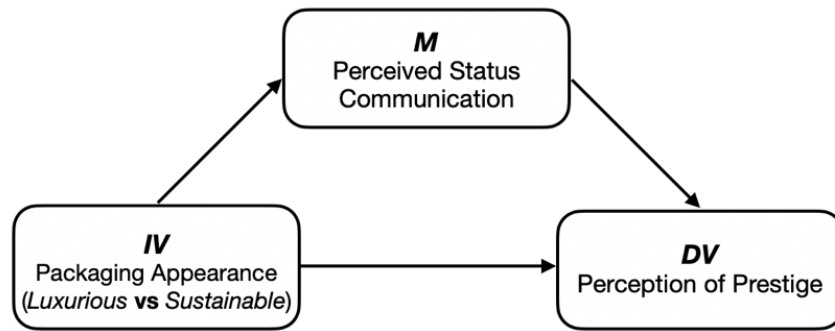


Figure 4 - Conceptual Model

This research model was chosen to examine how the packaging appearance, whether sustainable or luxurious, affects consumer perceptions of product prestige through the mediating role of perceived status communication. This approach allows for an in-depth analysis of whether the use of sustainable-looking packaging, characterized by neutral colors, a subtle design, and the presence of a recycled material logo, can decrease, enhance, or maintain the perception of prestige compared to a traditionally luxurious-looking packaging with glossy finishes and bold designs, and whether such effects are driven by changes in consumers’ perceptions of the status-signaling potential of the packaging.

Given the mixed findings in existing literature regarding consumer perceptions of luxury brands adopting sustainable practices, generating hypotheses was challenging. However, it is hypothesized that sustainable-looking packaging may negatively influence perception of prestige due to associations with reduced exclusivity and luxury. The negative effect of sustainable packaging on prestige will be mediated by a weaker perceived ability of the product to communicate social status, as consumers may perceive eco-friendly packaging as less effective in signaling high social standing.

The hypotheses are therefore formulated as follows:

H1 (direct effect):

Luxurious-looking packaging (glossy, bold designs) will be perceived as more prestigious than sustainable-looking packaging (neutral colors, recycled material symbols).

H2 (mediated effect):

The effect of packaging appearance (luxurious vs. sustainable) on perceived prestige will be mediated by perceived status communication, such that:

- Luxurious packaging will increase perceived status communication, resulting in higher prestige perceptions.
- Sustainable packaging will decrease perceived status communication, leading to lower prestige perceptions.

This model provides a clear framework for understanding how various packaging appearances impact consumer perceptions in the luxury market and highlights the potential trade-offs that luxury brands may face when adopting sustainable practices.

3. Methodology

This chapter outlines the methodology employed to investigate the impact of sustainable packaging on consumer perceptions of prestige in the context of luxury products. Specifically, the study explores how different packaging styles, luxurious-looking versus sustainable-looking, impact perceived social status communication and brand prestige. The chapter discusses the research approach, design, data collection process, data analysis methods, as well as considerations for reliability, validity, ethical standards, and study limitations.

3.1 Research Approach and Design

The study employs a deductive research approach, drawing on established theories in luxury branding, symbolic consumption, and status signaling. Based on these theoretical foundations, specific hypotheses were developed in the first chapter and tested through an experimental design in the following chapter. The research is quantitative and follows a between-subjects experimental structure, where each participant was randomly assigned to view either an image of luxurious-looking packaging or one of sustainable-looking packaging. To minimize bias and ensure experimental integrity, each participant was exposed to only one condition. The design is cross-sectional and descriptive, with data collected at a single time to capture and compare immediate perceptions evoked by the two packaging types.

3.2 Stimuli, Questionnaire Design, and Measures

Upon opening the link to the questionnaire created for the study, participants were informed about the purpose of the study. They were assured that the survey was anonymous, that the data would be used solely for research purposes in an aggregated form, and that by continuing, they would confirm their consent to participate. Next, participants were shown an image generated with the help of Artificial Intelligence (AI), of a perfume packaging, and instructed to observe it carefully, as follow-up questions would refer to the image. The experimental stimuli consisted of two packaging designs created for a fictitious perfume brand named Orphéa, used to eliminate potential bias coming from previous knowledge or attitudes toward existing brands.



Figure 5 - Condition 1: Luxury Packaging [AI Generated]

The luxury packaging condition, defined as ‘Image 1’, featured an ornate box with gold accents and intricate finishes, characteristics commonly associated with traditional luxury branding.



Figure 6 - Condition 2: Sustainable Packaging [AI Generated]

In contrast, the sustainable packaging design, ‘Image 2’, adopted a minimalist style with natural tones and environmental symbols intended to convey an eco-conscious message.

After viewing the random image shown, participants were asked to answer some questions (Appendix A). The questionnaire included statements rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Two scales were used to measure the core constructs of interest. The mediator, perceived social status communication, was measured using four items adapted from Shukla et al. (2015), which assessed the extent to which the brand signaled and communicated status and success (Appendix A-1). The dependent variable, perceived brand prestige, was measured using eight items adapted from Dubois et al. (2001), Kapferer (1998), and the Brand Luxury Index by Vigneron and Johnson (1999), capturing elements such as exclusivity,

sophistication, and prestige (Appendix A-2). An attention check question was included to confirm participants' concentration by asking them to recall whether they had been shown image 1 or 2. Finally, the questionnaire concluded with demographic questions regarding age, gender, and nationality.

3.3 Sampling and Data Collection

The data were collected using a non-probability convenience sampling strategy. The questionnaire was distributed online through personal networks and social media channels, allowing access to a diverse sample in terms of age, gender, and nationality. The data collection took place between April 17 and April 30, 2025, using the Qualtrics MX software. A total of 144 valid responses were collected and used in the main study. Additionally, a pre-test phase involving 45 participants was conducted before the main data collection to evaluate the reliability of the scales and the effectiveness of the experimental manipulation.

3.4 Data Preparation and Statistical Analysis

After the collection phase, the data was exported to the IBM SPSS Statistics program. Before conducting the statistical analysis, the dataset was cleaned and adjusted to ensure everything was ready for the analysis. To analyze the effect of the two packaging conditions (luxury packaging vs. sustainable packaging), a grouping variable, 'Conditions', was created and coded as '1' for those participants who had seen the luxury packaging image, representing the reference condition, and '2' for those viewing the sustainable packaging image. Two additional variables were created, one for each scale, by calculating the average response given by the participants. These scales have been named 'Mean_Med' for the average of the items of the mediating scale and 'Med_DV' for the dependent variable scale. After completing these steps, the dataset was considered ready to proceed with descriptive statistics and frequencies regarding the demographic questions, as well as the statistical analysis to test the hypothesis. Independent samples t-tests were performed to investigate the differences in perceptions between the two packaging conditions. To evaluate the internal consistency of the measurement scales, reliability analysis was conducted using Cronbach's Alpha and inter-item correlations. Factor analyses were carried out to confirm the unidimensionality and construct validity of the mediator and dependent variable scales. Lastly, a mediation analysis was

implemented using the PROCESS macro for SPSS (Model 4 by Hayes, 2022) to assess whether perceived social status mediated the link between packaging type and perceived brand prestige. All statistical analyses were conducted using IBM SPSS Statistics and will be presented in Chapter 4, which is dedicated to the analysis results.

3.5 Research Quality and Ethical Considerations

The study was designed to ensure high internal validity through random assignment, the use of a fictitious brand to eliminate pre-existing brand biases, and the implementation of validated scales. Reliability was further demonstrated through consistently high Cronbach's Alpha values observed in both the pre-test and main study phases. Factor analyses confirmed the unidimensional nature and construct validity of the key scales. An attention check was incorporated at the end of the questionnaire to verify that participants had engaged with the experimental stimuli. Ethical standards were rigorously endorsed throughout the study. Participants were informed about the academic nature of the research and assured that their participation was anonymous. No personal or sensitive data were collected, and all responses were analyzed in aggregate form.

3.6 Delimitations and Limitations

This study was intentionally limited to evaluating hypothetical brand perceptions based on static packaging images, without incorporating additional variables such as product price, quality, or established brand reputation. It focused exclusively on the luxury perfume category, and the influence of sustainable packaging was examined only in terms of visual design. Among the main limitations, the use of a convenience sample may restrict the generalizability of the findings to broader consumer populations. The fictitious brand, while effective in eliminating brand familiarity bias, may reduce ecological validity by not fully replicating real-world decision-making contexts. Lastly, the study relied on self-reported data, which may not accurately reflect actual consumer behavior in real-life purchasing scenarios.

4. Results

The present chapter presents the analysis conducted during both the pre-test and the main study, followed by a presentation of the results obtained.

4.1 Pre-Test Analysis

A pre-test phase was conducted to assess the reliability of the measurement scales and the effectiveness of the experimental manipulation before the main data collection. This preliminary analysis involved a sample of participants who were randomly assigned to one of two experimental conditions. The primary goal of the pre-test was to evaluate the sensitivity and reliability of the scales used to measure the key constructs, as well as to ensure that the experimental manipulation produced meaningful differences in the participants' responses. All the analysis outputs are included in 'Appendix B'.

The sample for the pre-test consisted of 45 participants, aged between 22 and 65 years, with a mean age of 34.71 years ($SD = 15.85$). The sample was exceptionally well-balanced in terms of gender, with 51.1% female (23 participants) and 42.2% male (19 participants). Additionally, 6.7% (3 participants) chose not to disclose their gender. The majority of participants were from Italy (88.9%, 40 participants), followed by smaller numbers from Germany (6.7%), France, and Sweden (each 2.2%).

4.1.1 Reliability of the Scales

To measure the mediation variable, represented by Social Status Communication, a scale was used whose Cronbach's Alpha was found to be 0.953, indicating a strong internal consistency among the items, well above the accepted threshold of 0.7. The correlations between the items range from 0.748 to 0.931, all exceeding 0.7, suggesting that the items consistently measure the same variable without excessive redundancy. The highest correlation (0.931) is between the items related to social status and social elite, concepts that are closely related but not identical.

The Cronbach's Alpha if item deleted analysis showed high values (ranging from 0.925 to 0.960), indicating that each item contributes positively to the scale. In conclusion, the scale used to measure the mediation variable demonstrates strong reliability and does not exhibit significant redundancies, making it suitable for its purpose. To measure the dependent variable related to the prestige perception of the respondents, a scale consisting

of 8 items was used. The Cronbach's Alpha value was found to be 0.981, a very high score indicating strong internal consistency among the items. This suggests that the scale reliably measures prestige perception as a homogeneous construct.

The Inter-item Correlations Range from 0.772 to 0.926, all exceeding the 0.7 threshold, indicating that the items are strongly correlated, without excessive redundancy. In particular, the highest correlation (0.926) is between the items related to 'prestige perception' and 'brand exclusivity', concepts closely related. The Cronbach's Alpha if item deleted analysis shows very high values, ranging from 0.976 to 0.983, indicating that removing any item would not significantly improve the overall reliability of the scale. Moreover, the Item-total Correlations are all above 0.8, confirming that each item contributes positively to the overall measure of prestige perception.

4.1.2 Factor Analysis

Following the Scales' reliability analysis, a factor analysis was conducted to assess the internal consistency and validity of both the mediator and dependent variable scales. For the mediator scale, which measures perception of social status, the Kaiser-Meyer-Olkin (KMO) measure was 0.831, indicating that the sample was adequate for the analysis. Bartlett's Test of Sphericity ($\chi^2 = 196.511$, $p < 0.001$) confirmed the statistical significance of the correlation matrix. The factor analysis revealed a single component that explained 87.77% of the total variance, suggesting that the mediator scale is unidimensional and effectively measures social status communication.

For the dependent scale, the KMO measure was 0.954, further validating the adequacy of the sample. Bartlett's Test of Sphericity ($\chi^2 = 541.615$, $p < 0.001$) confirmed the significance of the correlation matrix. The analysis identified a single component that accounted for 88.37% of the variance, proving that the dependent scale, measuring the perceived brand prestige, is also unidimensional. Both scales demonstrated validity and unidimensionality in this pre-test phase, providing a solid foundation for further testing in the main study.

4.1.3 Pre-Test Findings: Independent Sample T-Test and Correlation Analysis

To preliminarily assess the sensitivity of the scales used and the proper functioning of the experimental manipulation, an independent samples t-test was finally conducted during

the pre-test. The results of the t-test showed a significant difference between the two groups, randomly assigned to one of the two experimental conditions: participants exposed to the image of the luxurious-looking packaging (condition 1) reported higher scores ($M = 5.43$, $SD = 1.28$, $n = 23$) compared to those who viewed the sustainable-looking packaging (condition 2) ($M = 2.56$, $SD = 1.52$, $n = 22$). The assumption of homogeneity of variances was satisfied (Levene's Test: $F = .894$, $p = .350$), so the row with equal variances was considered. The t-test yielded a highly significant result: $t(43) = 6.89$, $p < .001$, with a mean difference of 2.88.

Furthermore, the effect size calculated using Cohen's $d = 1.40$ confirms a very substantial impact of the manipulation on the measured construct. This result suggests that, already in the pre-test phase, the manipulation appears effective in generating significant differences in participants' perceptions. To further assess the relationship between the measured variables, a Pearson correlation analysis was conducted between the mean variables of the two scales used, 'Mean_DV' and 'Mean_Med'. The results showed a strong positive correlation ($r = 0.940$) between the two measures, indicating that they tend to vary in a similar manner. The correlation was found to be statistically significant ($p < 0.001$), confirming the robustness of the relationship between the two scales. This suggests that the measured variables are closely related, strengthening the reliability of the measurements at this preliminary stage of the study. Given that the pre-test demonstrated positive outcomes regarding the clarity of the questions, the consistency of the scales, and the effective functioning of the experimental manipulation, the same questionnaire was retained for the main study with minimal modifications.

4.2 Main Study Results

The following chapter presents the results and findings from the statistical analysis of the main study, conducted on a larger sample. In addition to the analyses performed during the pre-test, a comprehensive analysis using the SPSS extension PROCESS by F. Hayes was carried out. This analysis was conducted to assess both direct and indirect effects and to confirm or refute the hypotheses outlined in Chapter 2.5.2. All the analysis outputs are included in 'Appendix C'.

4.2.1 Sample

The sample used for the main study consists of 144 participants, with an age range spanning from 15 to 65 years. The average age of the participants is 31.72 years, with a standard deviation of 12.45, suggesting a relatively wide age distribution. This indicates that the sample includes a diverse range of ages, from younger individuals to older adults, offering a broad perspective on consumer perceptions across different age groups.

Regarding gender distribution, the sample consists of 48.6% female participants ($n = 70$) and 47.9% male participants ($n = 69$). The remaining 3.5% of participants preferred not to specify the gender ($n = 5$). The gender distribution is almost balanced, with a slight predominance of female participants. Regarding nationality, the sample is mainly composed of Italian participants, accounting for 57.6% of the respondents ($n = 83$). German participants represent 22.2% of the sample ($n = 32$), while smaller proportions come from Sweden (4.9%, $n = 7$), Norway (3.5%, $n = 5$), the Netherlands (2.8%, $n = 4$), Spain (2.8%, $n = 4$), Finland (2.8%, $n = 4$), and France (2.1%, $n = 3$). Also, there are tiny numbers of participants from Belgium and Canada.

4.2.2 Scales Reliability

The reliability of the scales was also assessed in the main study to confirm the robustness of the constructs used in the analysis.

Metric	Value Range	Highest Value
Cronbach's Alpha	0.971	—
Inter-item Correlations	0.659 – 0.933	0.933
Corrected Item-Total Correlations	0.787 – 0.932	0.932
Cronbach's Alpha if Item Deleted	0.964 – 0.972	—

Table 1 - Reliability Analysis of the Prestige Perception Scale

To measure the dependent variable related to prestige perception, the same scale used for the pre-test was employed. The reliability analysis revealed a Cronbach's Alpha of 0.971, which, although slightly lower than the pre-test value of 0.981, still indicates excellent internal consistency and well above the 0.7 threshold. The inter-item correlations ranged from 0.659 to 0.933, compared to the pre-test range of 0.772 to 0.926, again suggesting strong relationships without redundancy. Notably, in both phases, the highest correlation

was found between ‘prestige perception’ and ‘brand exclusivity’, concepts that are conceptually aligned but not entirely overlapping.

The Corrected Item-Total Correlations were all above 0.78, with the highest reaching 0.932, while in the pre-test, all items exceeded 0.8. The Cronbach’s Alpha if Item Deleted ranged from 0.964 to 0.972, slightly lower but still confirming the internal robustness of the scale. Overall, the results from the main study confirm the scale’s reliability and reinforce the construct’s measurement validity across samples.

Metric	Value Range	Highest Value
Cronbach’s Alpha	0.947	–
Inter-item Correlations	0.763 – 0.864	0.864
Corrected Item-Total Correlations	0.819 – 0.899	0.899
Cronbach’s Alpha if Item Deleted	0.923 – 0.948	–

Table 2 - Reliability Analysis of the Perceived Status Communication Scale

Also, to assess the mediating variable, which captures perceived status communication, the same 4-item scale used in the previous analysis was employed. The Cronbach’s Alpha in the main study was 0.947, consistent with the high reliability observed in the pre-test (0.953). The Inter-item Correlations ranged from 0.763 to 0.864, close to the pre-test range of 0.748 to 0.931. In both cases, the strongest correlation was found between the items referring to social status and social elite, showing conceptual proximity while still capturing slightly different dimensions.

The Corrected Item-Total Correlations in the main study remained high, 0.819 to 0.899, as did the Cronbach’s Alpha if Item Deleted, which ranged from 0.923 to 0.948, comparable to the pre-test values (0.925–0.960). This continued consistency across pre-test and main study results provides further evidence that the scale effectively captures the construct of perceived status signaling and is appropriate for its mediating role in the study. In conclusion, both measurement instruments demonstrate excellent and stable reliability, enhancing confidence in the internal validity of the constructs and supporting their use in the subsequent analyses.

4.2.3 Factor analysis

To ensure the reliability and validity of the measurement instruments, factor analyses were conducted on both the dependent and mediator variables, following the initial pre-test phase where the same analyses had been performed.

KMO	Bartlett's χ^2 (df)	p	Factors	Var. %	Loadings	Communalities
.955	1435.398 (28)	< .001	1	83.11%	.833–.950	.693–.902

Table 3 - Factor Analysis of the Perception of Prestige Scale

Starting with a factor analysis of the prestige perception scale, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.955, indicating excellent suitability of the data for factor extraction. Bartlett's Test of Sphericity was highly significant ($\chi^2 = 1435.398$, $df = 28$, $p < 0.001$), confirming that the correlation matrix was appropriate. A single factor emerged with an Eigenvalue of 6.649, explaining 83.11% of the total variance. Factor loadings were consistently high, ranging from 0.833 to 0.950, and communalities varied between 0.693 and 0.902. These results confirm that the brand prestige scale is unidimensional and internally consistent. Notably, this finding aligns with the results obtained during the pre-test, where the same scale showed a KMO of 0.954 and explained 88.37% of the variance. Although the variance explained is slightly lower in the main study, the overall structure and strength of item loadings remained stable.

KMO	Bartlett's χ^2 (df)	p	Factors	Var. %	Loadings	Communalities
.868	567.182 (6)	< .001	1	86.43%	.895–.945	.801–.894

Table 4 - Factor Analysis of the Perceived Status Communication Scale

Similarly, analysing the Mediator scale, the KMO value was 0.868, suggesting good sampling adequacy, and Bartlett's Test of Sphericity was significant ($\chi^2 = 567.182$, $df = 6$, $p < 0.001$). One component was extracted with an Eigenvalue of 3.457, accounting for 86.43% of the total variance. All four items loaded strongly on this factor (from .895 to .945), with communalities between 0.801 and 0.894. As with the dependent variable,

these results are consistent with those from the pre-test phase, in which the same scale produced a KMO of 0.831 and explained 87.77% of the variance.

4.2.4 Independent Sample T-Test

An Independent Sample T-Test to assess the effectiveness of the experimental manipulation and the sensitivity of the measurement scales was conducted on the main sample, too.

Condition	<i>M</i>	<i>SD</i>	<i>n</i>	Statistic	Value
Luxury Packaging	5.37	1.05	76	<i>t</i> (122.44)	10.70
Sustainable Packaging	3.11	1.42	68	<i>p</i>	< .001
				Cohen's <i>d</i>	1.82

Table 5 - T Test Analysis

Again, the results showed a statistically significant difference between the two groups: participants exposed to the luxurious packaging condition reported higher prestige perceptions ($M = 5.37$, $SD = 1.05$, $n = 76$) compared to those exposed to the sustainable packaging condition ($M = 3.11$, $SD = 1.42$, $n = 68$). Due to the violation of the homogeneity of variances assumption (Levene's Test: $F = 9.117$, $p = .003$), the interpretation was based on the "equal variances not assumed" row. The difference was highly significant, $t(122.44) = 10.70$, $p < .001$, with a mean difference of 2.25.

These findings closely mirror the results obtained in the pre-test phase ($N = 45$), where the same manipulation produced a significant effect in the expected direction ($t(43) = 6.89$, $p < .001$; $M_1 = 5.43$ vs. $M_2 = 2.56$; Cohen's $d = 1.40$). The consistency in the direction and significance of the results across both samples provides strong evidence of the robustness and reliability of the manipulation. The effect size observed in the main study (Cohen's $d = 1.82$) was even larger than that of the pre-test, indicating that the difference in brand prestige perceptions elicited by the two packaging types not only persisted but was amplified in a larger and more diverse sample.

4.2.5 Mediation Analysis with PROCESS by F. Hayes

Finally, as the last analysis conducted in the Main Study, a simple mediation analysis was performed using Model 4 of the PROCESS macro v4.2 for SPSS (Hayes, 2022). The

present analysis has been run to examine the indirect effect of the experimental condition (type of packaging: luxury vs. sustainable) on brand prestige perception, mediated by the perceived social status communicated.

Effect Type	Regression	β (Coeff.)	SE	t	p	95% CI (LL, UL)
Effect of X on Mediator	Packaging Type → Perceived Status	-2.2819	0.2423	-9.42	< .001	[-2.7608, -1.8030]
Effect of Mediator on Y	Perceived Status → Brand Prestige	0.6895	0.0426	16.17	< .001	[0.6052, 0.7738]
Direct Effect of X on Y	Packaging Type → Brand Prestige	-0.6812	0.1569	-4.34	< .001	[-0.9914, -0.3709]
Total Effect of X on Y	Packaging Type → Brand Prestige	-2.2545	0.2072	-10.88	< .001	[-2.6641, -1.8448]
Indirect Effect (via Med)	Packaging Type → Brand Prestige (via Med)	-1.5733	0.2167	—	—	[-2.0195, -1.1689]*

Table 6 - PROCESS Macro v4.2 Analysis

The results showed that the experimental condition had a significant effect on perceived status communication (effect of X on Mediator), with a coefficient of $\beta = -2.2819$ (SE = 0.2423, $t = -9.42$, $p < .001$), and a 95% confidence interval ranging from -2.7608 to -1.8030. This result indicates that participants exposed to the sustainable packaging perceived a significantly lower level of social status compared to those exposed to the luxury packaging. This supports the first part of H2, confirming that sustainable packaging decreases perceived status communication.

Perceived status communication, in turn, significantly influenced brand prestige perception (effect of Mediator on Y), with a coefficient of $\beta = 0.6895$ (SE = 0.0426, $t = 16.17$, $p < .001$), and a 95% confidence interval between 0.6052 and 0.7738. This supports the second part of H2, indicating that higher perceived status is associated with higher prestige perception. The direct effect of packaging type on brand prestige (total effect of X on Y) was also significant ($\beta = -0.6812$, SE = 0.1569, $t = -4.34$, $p < .001$), with a confidence interval ranging from -0.9914 to -0.3709. This confirms H1, showing that luxury packaging is perceived as more prestigious than sustainable packaging. The total effect (direct effect of X on Y), which represents the overall impact of the experimental

condition on brand prestige, was likewise significant ($\beta = -2.2545$, $SE = 0.2072$, $t = -10.88$, $p < .001$; 95% CI: [-2.6641, -1.8448]).

Finally, the indirect effect of packaging type on brand prestige through perceived social status communication (indirect effect via Mediator) was significant, with a coefficient of $\beta = -1.5733$, a bootstrap standard error of 0.2167, and a 95% bootstrap confidence interval ranging from -2.0195 to -1.1689. Since this interval does not include zero, the presence of a significant mediation can be confirmed. Therefore, H2 is fully supported, demonstrating a significant indirect effect through perceived status. These findings indicate the presence of partial mediation: the type of packaging influences brand prestige both directly and indirectly via perceived social status communication. Specifically, while sustainable packaging aligns with ethical and environmental values, it appears to convey a lower level of status, which in turn leads to a reduced perception of brand prestige compared to luxury packaging.

5. Discussion

The research aimed to analyze the impact of packaging appearance, whether sustainable or luxurious, on the perception of prestige in luxury products, also exploring the mediating role of perceived status signaling. The results fully support the hypotheses formulated in Chapter 2.5.1, thereby clarifying a central issue in the academic debate on the relationship between sustainability and luxury: the compatibility, or incompatibility, of these opposing concepts.

The analysis conducted showed that luxurious packaging, characterized by visual elements such as bright colors, bold design, and sophisticated finishes, is perceived as significantly more prestigious than sustainable packaging, characterized by a minimalist design, neutral tones, and environmental symbols, thus confirming Hypothesis 1. Furthermore, perceived status communication acted as a significant mediator in the relationship between packaging and prestige perception, thereby validating Hypothesis 2. In line with the works of Vigneron & Johnson (1999) and Kapferer (2010), these results confirm that in the luxury context, packaging plays a fundamental symbolic function, reinforcing the perception of value and the consumer's social status (J.-N. Kapferer, 2010; Vigneron & Johnson, 1999).

These findings align with what was already highlighted by Achabou and Dekhili (2013), who noted that adopting recycled or eco-friendly materials can undermine the perception of exclusivity, a key element of luxury identity. Similarly, Wang et al. (2021) already demonstrated that customers of established brands like Hermès tend to reject sustainable materials not for functional reasons, but because they are perceived as incompatible with the values of rarity and uniqueness deeply rooted in the sector. Moreover, studies such as Ko et al. (2019) confirm that consumers also use packaging aesthetics to signal status and reinforce their social identity.

However, emerging research suggests that for certain consumer segments, particularly among younger and more aware individuals, sustainability can become a new signal of distinction. Sestino et al. (2022) propose a redefinition of the concept of uniqueness in luxury, where sustainable features, such as innovative materials and low-impact artisanal processes, can acquire positive symbolic value.

The confirmation of both hypotheses fits into the debate on the sustainable luxury paradox (Kapferer & Michaut, 2015), according to which the values associated with sustainability, such as ethics, moderation and sobriety, appear to be in contrast with the traditional values of luxury, like excess, exclusivity and ostentation (Berry, 1994; Wilcox et al., 2009; Pascaud, 2011). Despite the openness shown by consumers from Generation Z and Millennials toward sustainable practices (Mok et al., 2022; Rolling & Sadachar, 2018), the results of this study suggest that at least on a visual level, eco-oriented packaging still fails to convey a symbolic power sufficient to support the perception of prestige, particularly relevant aspect in a sector where the symbolic dimension is central (Dubois & Duquesne, 1993; Wiedmann et al., 2009).

6. Conclusion

This thesis examined the impact of sustainable-looking versus luxurious-looking packaging on consumer perceptions in the luxury sector, with a particular focus on perceived brand prestige and the mediating role of perceived social status communication. The findings provide empirical support for both hypotheses formulated, answering the Research Question developed in chapter 2.5: a luxurious-looking packaging is perceived as significantly more prestigious than a sustainable-looking packaging, and this relationship is partially mediated by the degree to which the packaging communicates social status. The study reinforces the symbolic power of packaging in luxury branding, aligning with prior literature that highlights the role of visual and aesthetic cues in status signaling. While sustainable-looking packaging reflects ethical and environmental values, it appears to lack the symbolic strength traditionally associated with exclusivity and high status, which is characteristic of the luxury sector. As a result, sustainable designs may unintentionally weaken brand prestige perceptions when they are not aligned with the visual and material codes of luxury. However, this research also highlights the evolving nature of consumer values, particularly among younger generations, where sustainability can be viewed as a new form of distinction. Nevertheless, the current findings suggest that sustainable packaging still underperforms in terms of prestige perception. In summary, the integration of sustainability into luxury branding must be approached with consideration and a creative approach. For luxury brands, the challenge lies not in choosing between prestige and responsibility, but in redefining what prestige can mean in a world increasingly driven by purpose and values.

6.1 Theoretical Implications

From a theoretical perspective, this study reinforces the validity of multidimensional models of luxury value, which integrate functional, symbolic, and hedonic components (Mok et al., 2022; Rolling & Sadachar, 2018). The centrality of perceived status signaling as a mediating variable confirms the relevance of symbolic aspects in the process of attributing prestige (Godey et al., 2013; Tsai, 2005). Furthermore, as suggested by Amatulli et al. (2018), Corporate Social Responsibility (CSR) initiatives are more effective when targeted at status-oriented consumers, confirming that sustainability can

become a distinctive lever if communicated consistently in the language and codes of luxury (Amatulli et al., 2018b).

6.2 Managerial Implications

From a practical perspective, the result provides valuable insights for luxury brands that aim to adopt sustainable packaging practices. The transition must be carefully designed to avoid negative effects on the perception of exclusivity. As emphasized by Belozertseva (2024), visual elements such as the use of natural colors, premium materials, and innovative yet brand-consistent design can mitigate the risk of prestige loss. It is fundamental that the new sustainable solutions reflect the brand's distinctive aesthetics and do not appear as pure imitations of mass-market or green brands typical packaging (Belozertseva, 2024). According to De Angelis et al. (2016) and Adigüzel et al. (2018), visual coherence is a must for the success of sustainable communication in the luxury sector (Adigüzel et al., 2018; De Angelis et al., 2016).

6.3 Study Limitations

Like any research, this study presents some limitations that constrain its scope and offers suggestions for future investigations. A first limitation concerns the use of a fictitious brand, Orphéa, which lacks an existing market reputation. The lack of brand familiarity may have affected the packaging's ability to evoke an authentic emotional response in participants, limiting the generalizability of the results compared to established luxury brands. Secondly, the experimental manipulation relied solely on visual stimuli, represented by the two images created, without considering the importance of other sensory elements such as texture, sound, or weight of the packaging, which play a fundamental role in the luxury experience (J.-N. Kapferer, 1997; Krishna et al., 2017). Another limitation concerns the sample composition, mainly composed of European participants, particularly Italians. Given that the perception of luxury and sustainability varies significantly across cultures (Arantes & Costa, 2024; Godey et al., 2013), the results obtained by the empirical study may not be fully applicable to other contexts and countries, such as the Asian markets, where sustainability can also be perceived as a status symbol (Carranza et al., 2023).

Finally, the experimental design only compared two opposing packaging configurations, one looking sustainable and one looking luxurious, without exploring or proposing an

intermediate or hybrid solution that could represent feasible pathways to reconcile prestige and environmental responsibility (De Angelis et al., 2016). Within this framework, an additional theoretical reflection emerges: the negative effect of sustainable packaging on prestige may be partly due to consumers' lack of familiarity with the concept of sustainable luxury. Previous studies conducted by Dekhili and Achabou (2016) have shown that ecological and sustainable signals are still often associated with mass-market products rather than exclusive goods. This discrepancy may generate cognitive dissonance, leading consumers to unconsciously reject packaging perceived as inconsistent with expectations related to social status and rarity (Brun & Castelli, 2013; Dekhili et al., 2019).

6.4 Future Research Directions

To address the identified limitations, future research could explore several complementary aspects. Firstly, it would be useful to replicate the experiment using real luxury brands with established market reputations. This would allow for the verification of whether brand awareness and brand equity moderate the effect of sustainable packaging on prestige perception, as suggested by the literature on consumer familiarity with the brand. Another potential development could involve exploring hybrid packaging configurations that combine traditional luxury elements, such as refined finishes or exclusive graphic details, with more subtle and brand-consistent sustainability indicators. A further interesting research direction concerns the spread of the analysis to different cultural contexts. Since the literature has shown that perceptions can vary significantly between Western and Eastern markets, investigating the phenomenon in non-European countries, such as China or Japan, could offer a broader and more global perspective on the symbolic value attributed to sustainable packaging. Finally, it would be appropriate to include in the conceptual model some moderating variables, such as age, brand knowledge, or the consumer's value orientation, such as social status versus personal self-realization. These variables could significantly influence the relationship between packaging appearance and prestige perception, helping to identify consumer segments more receptive to a luxury that integrates sustainability values.

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Appendix A – Scale Items

1. Items Mediator Variable's Scale

Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements:

	1 (strongly disagree)	2	3	4	5	6	7 (strongly agree)
Owning this brand indicates a social status.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Owning this brand makes one feel part of a social elite.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand is associated with successful, high-profile people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Owning this brand is a symbol of success.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Items Dependent Variable's Scale

Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements:

	1 (strongly disagree)	2	3	4	5	6	7 (strongly agree)
Orphéa is an exclusive brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orphéa is a unique brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orphéa is a luxurious brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orphéa is a sophisticated brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orphéa is a superior brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orphéa is a precious brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orphéa is a prestigious brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orphéa is a brand for the few.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix B – Pre-Test

1. Descriptive Analysis Sample Age

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Please, indicate your age in numbers:	45	22	65	34.71	15.845
Valid N (listwise)	45				

2. Frequencies Sample Gender

Statistics

Please, indicate your gender:

N	Valid	45
	Missing	0

Please, indicate your gender:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	23	51.1	51.1	51.1
	Male	19	42.2	42.2	93.3
	Prefer not to say	3	6.7	6.7	100.0
	Total	45	100.0	100.0	



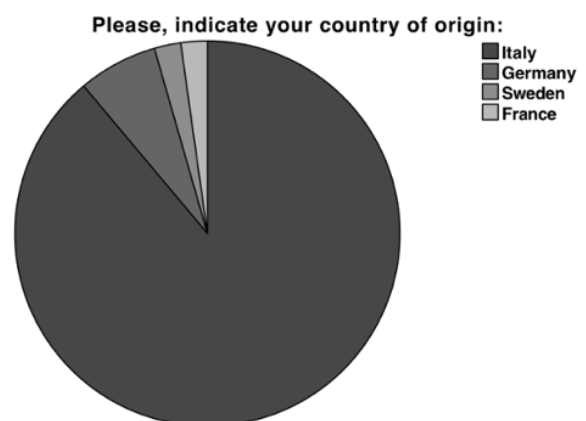
3. Frequencies Sample Nationality

Statistics

Please, indicate your country of origin:

N	Valid	45
	Missing	0

Please, indicate your country of origin:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	France	1	2.2	2.2	2.2
	Germany	3	6.7	6.7	8.9
	Italy	40	88.9	88.9	97.8
	Sweden	1	2.2	2.2	100.0
	Total	45	100.0	100.0	



4. Reliability Analysis Mediator Scale

Case Processing Summary

		N	%
Cases	Valid	45	100.0
	Excluded ^a	0	.0
	Total	45	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.953	.953	4

Item Statistics

	Mean	Std. Deviation	N
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand indicates a social status.	4.27	2.071	45
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand makes one feel part of a social elite.	4.02	2.200	45
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - This brand is associated with successful, high-profile people.	3.96	2.215	45
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this luxury brand is a symbol of success.	3.64	2.101	45

Inter-Item Correlation Matrix

	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand indicates a social status.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand makes one feel part of a social elite.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - This brand is associated with successful, high-profile people.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this luxury brand is a symbol of success.
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand indicates a social status.	1.000	.931	.859	.748
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand makes one feel part of a social elite.	.931	1.000	.877	.793
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - This brand is associated with successful, high-profile people.	.859	.877	1.000	.807
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this luxury brand is a symbol of success.	.748	.793	.807	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand indicates a social status.	11.62	37.559	.901	.876	.934
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand makes one feel part of a social elite.	11.87	35.527	.929	.897	.925
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - This brand is associated with successful, high-profile people.	11.93	35.882	.902	.815	.934
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this luxury brand is a symbol of success.	12.24	38.962	.814	.684	.960

5. Reliability Analysis Dependent Variable Scale

Case Processing Summary

		N	%
Cases	Valid	45	100.0
	Excluded ^a	0	.0
	Total	45	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.981	.981	8

Item Statistics

	Mean	Std. Deviation	N
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is an exclusive brand.	4.07	2.147	45
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a unique brand.	4.04	2.110	45
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a luxurious brand.	4.13	2.252	45
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a sophisticated brand.	4.13	2.149	45
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a superior brand.	4.02	2.006	45
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a precious brand.	3.98	2.083	45
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a prestigious brand.	4.09	2.244	45
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a brand for the few.	3.76	2.101	45

Inter-Item Correlation Matrix

	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is an exclusive brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a unique brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a luxurious brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a sophisticated brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a superior brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a precious brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a prestigious brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a brand for the few.
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is an exclusive brand.	1.000	.772	.877	.865	.855	.895	.890	.875
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a unique brand.	.772	1.000	.793	.801	.757	.817	.805	.771
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a luxurious brand.	.877	.793	1.000	.926	.885	.911	.942	.881
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a sophisticated brand.	.865	.801	.926	1.000	.838	.894	.916	.858
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a superior brand.	.855	.757	.885	.838	1.000	.908	.893	.896
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a precious brand.	.895	.817	.911	.894	.908	1.000	.943	.897
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a prestigious brand.	.890	.805	.942	.916	.893	.943	1.000	.887
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a brand for the few.	.875	.771	.881	.858	.896	.897	.887	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is an exclusive brand.	28.16	198.225	.915	.843	.979
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a unique brand.	28.18	203.831	.827	.696	.983
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a luxurious brand.	28.09	193.674	.947	.919	.977
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a sophisticated brand.	28.09	197.492	.927	.886	.978
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a superior brand.	28.20	201.936	.915	.869	.979
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a precious brand.	28.24	197.780	.956	.924	.977
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a prestigious brand.	28.13	193.300	.958	.934	.976
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a brand for the few.	28.47	199.118	.921	.863	.978

6. Factor Analysis Mediator Scale

Correlation Matrix

		Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand indicates a social status.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand makes one feel part of a social elite.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – This brand is associated with successful, high-profile people.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this luxury brand is a symbol of success.
Correlation	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand indicates a social status.	1.000	.931	.859	.748
	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand makes one feel part of a social elite.	.931	1.000	.877	.793
	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – This brand is associated with successful, high-profile people.	.859	.877	1.000	.807
	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this luxury brand is a symbol of success.	.748	.793	.807	1.000

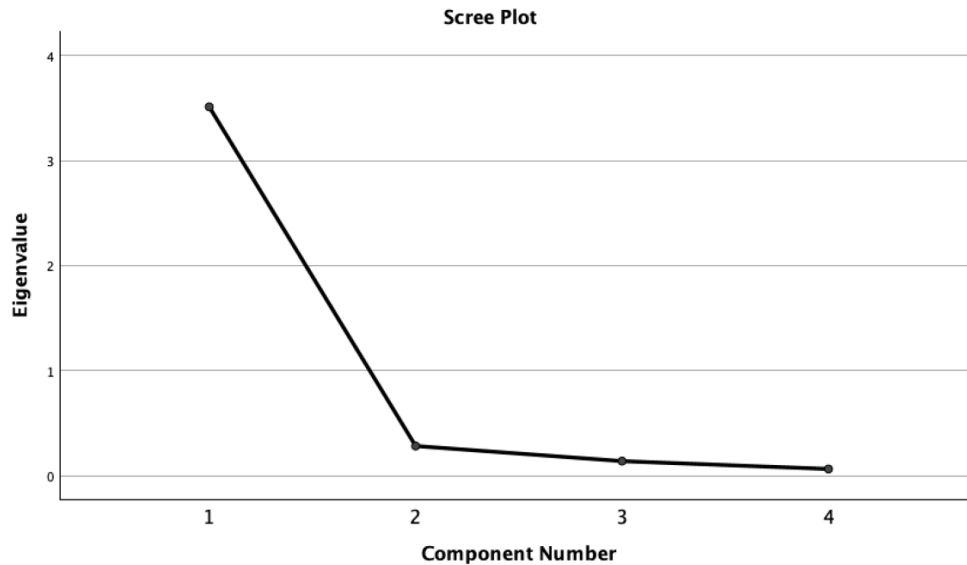
KMO and Bartlett's Test

Kaiser–Meyer–Olkin Measure of Sampling Adequacy.		.831
Bartlett's Test of Sphericity	Approx. Chi-Square	196.511
	df	6
	Sig.	<.001

Total Variance Explained

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.511	87.767	87.767	3.511	87.767	87.767
2	.284	7.097	94.864			
3	.140	3.504	98.368			
4	.065	1.632	100.000			

Extraction Method: Principal Component Analysis.



Communalities

	Initial	Extraction
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand indicates a social status.	1.000	.896
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand makes one feel part of a social elite.	1.000	.927
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – This brand is associated with successful, high-profile people.	1.000	.896
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this luxury brand is a symbol of success.	1.000	.793

Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component 1
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand makes one feel part of a social elite.	.963
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – This brand is associated with successful, high-profile people.	.946
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand indicates a social status.	.946
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this luxury brand is a symbol of success.	.890

Extraction Method: Principal Component Analysis.^a

a. 1 components extracted.

7. Factor Analysis Dependent Variable Scale

Correlation Matrix

	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is an exclusive brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a unique brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a luxurious brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a sophisticated brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a superior brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a precious brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a prestigious brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a brand for the few.
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is an exclusive brand.	1.000	.772	.877	.865	.855	.895	.890	.875
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a unique brand.	.772	1.000	.793	.801	.757	.817	.805	.771
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a luxurious brand.	.877	.793	1.000	.926	.885	.911	.942	.881
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a sophisticated brand.	.865	.801	.926	1.000	.838	.894	.916	.858
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a superior brand.	.855	.757	.885	.838	1.000	.908	.893	.896
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a precious brand.	.895	.817	.911	.894	.908	1.000	.943	.897
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a prestigious brand.	.890	.805	.942	.916	.893	.943	1.000	.887
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a brand for the few.	.875	.771	.881	.858	.896	.897	.887	1.000

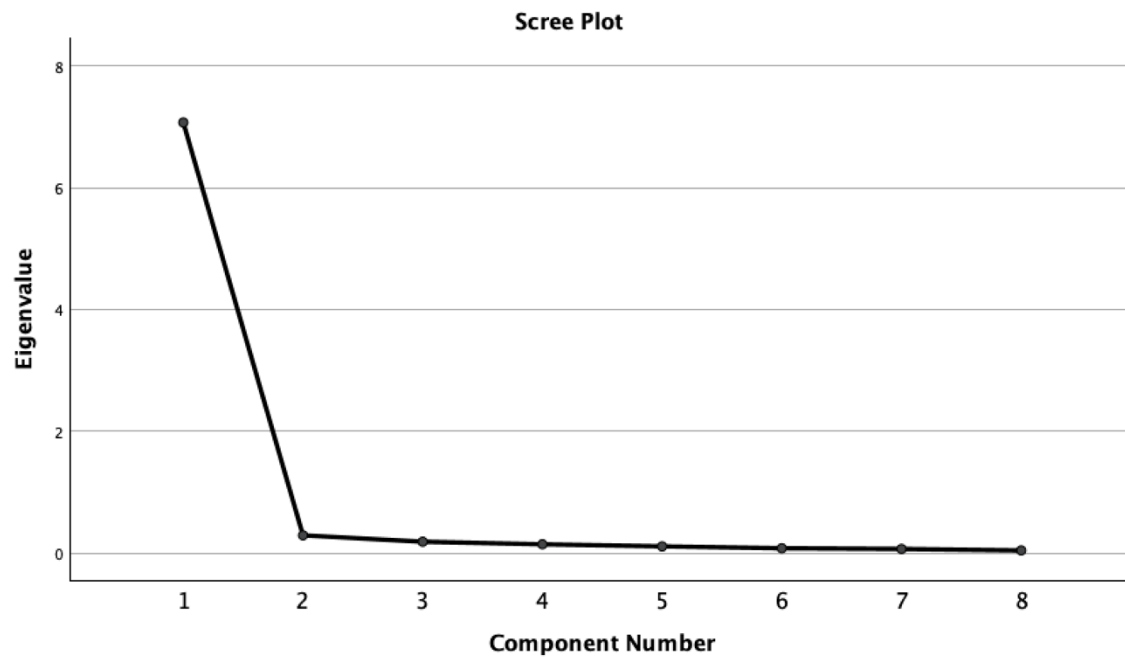
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.954
Bartlett's Test of Sphericity	Approx. Chi-Square	541.615
	df	28
	Sig.	<.001

Total Variance Explained

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.070	88.371	88.371	7.070	88.371	88.371
2	.292	3.651	92.021			
3	.187	2.342	94.363			
4	.145	1.816	96.180			
5	.111	1.391	97.570			
6	.081	1.007	98.577			
7	.069	.864	99.441			
8	.045	.559	100.000			

Extraction Method: Principal Component Analysis.



Communalities

	Initial	Extraction
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is an exclusive brand.	1.000	.875
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a unique brand.	1.000	.746
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a luxurious brand.	1.000	.923
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a sophisticated brand.	1.000	.892
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a superior brand.	1.000	.876
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a precious brand.	1.000	.935
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a prestigious brand.	1.000	.939
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a brand for the few.	1.000	.884

Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component 1
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a prestigious brand.	.969
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a precious brand.	.967
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a luxurious brand.	.960
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a sophisticated brand.	.945
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a brand for the few.	.940
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a superior brand.	.936
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is an exclusive brand.	.935
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a unique brand.	.864

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

8. Independent Sample T Test

Group Statistics

	Packaging Condition	N	Mean	Std. Deviation	Std. Error Mean
Mean_DV	Luxury Packaging	23	5.4348	1.28135	.26718
	Sustainable Packaging	22	2.5568	1.51517	.32303

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Mean_DV	Equal variances assumed	.894	.350	6.891	43	One-Sided p	Two-Sided p	2.87796	.41763	Lower	Upper
	Equal variances not assumed			6.865	41.169	<.001	<.001	2.87796	.41921	2.03146	3.72447

Independent Samples Effect Sizes

		Standardizer ^a	Point Estimate	95% Confidence Interval	
Mean_DV	Cohen's d	1.40042	2.055	Lower	Upper
	Hedges' correction	1.42546	2.019	1.320	2.775
	Glass's delta	1.51517	1.899	1.297	2.726
				1.071	2.705

a. The denominator used in estimating the effect sizes.
 Cohen's d uses the pooled standard deviation.
 Hedges' correction uses the pooled standard deviation, plus a correction factor.
 Glass's delta uses the sample standard deviation of the control (i.e., the second) ...

9. Correlation Analysis

Correlations

		Mean_DV	Mean_Med
Mean_DV	Pearson Correlation	1	.940 **
	Sig. (2-tailed)		<.001
	N	45	45
Mean_Med	Pearson Correlation	.940 **	1
	Sig. (2-tailed)	<.001	
	N	45	45

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

Appendix C – Main Study

1. Descriptive Analysis Sample Age

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Please, indicate your age in numbers:	144	15	65	31.72	12.450
Valid N (listwise)	144				

2. Frequencies Sample Gender

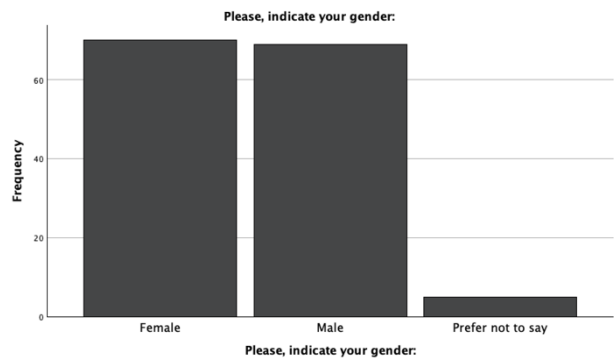
Statistics

Please, indicate your gender:

N	Valid	144
	Missing	0

Please, indicate your gender:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	70	48.6	48.6	48.6
	Male	69	47.9	47.9	96.5
	Prefer not to say	5	3.5	3.5	100.0
	Total	144	100.0	100.0	



3. Frequencies Sample Nationality

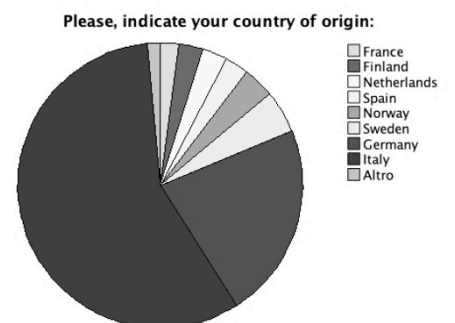
Statistics

Please, indicate your country of origin:

N	Valid	144
	Missing	0

Please, indicate your country of origin:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Belgium	1	.7	.7	.7
	Canada	1	.7	.7	1.4
	Finland	4	2.8	2.8	4.2
	France	3	2.1	2.1	6.3
	Germany	32	22.2	22.2	28.5
	Italy	83	57.6	57.6	86.1
	Netherlands	4	2.8	2.8	88.9
	Norway	5	3.5	3.5	92.4
	Spain	4	2.8	2.8	95.1
	Sweden	7	4.9	4.9	100.0
	Total	144	100.0	100.0	



4. Reliability Analysis Dependent Variable Scale

Case Processing Summary

		N	%
Cases	Valid	144	100.0
	Excluded^a	0	.0
	Total	144	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.971	.971	8

Inter-Item Correlation Matrix

	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is an exclusive brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is a unique brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is a luxurious brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is a sophisticated brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is a superior brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is a precious brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is a prestigious brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is a brand for the few.
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is an exclusive brand.	1.000	.755	.801	.805	.769	.829	.851	.823
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is a unique brand.	.755	1.000	.693	.746	.659	.735	.767	.742
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is a luxurious brand.	.801	.693	1.000	.859	.808	.854	.863	.812
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is a sophisticated brand.	.805	.746	.859	1.000	.833	.868	.870	.805
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is a superior brand.	.769	.659	.808	.833	1.000	.864	.856	.778
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is a precious brand.	.829	.735	.854	.868	.864	1.000	.875	.807
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is a prestigious brand.	.851	.767	.863	.870	.856	.875	1.000	.833
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Orphéa is a brand for the few.	.823	.742	.812	.805	.778	.807	.833	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is an exclusive brand.	30.01	139.364	.882	.790	.967
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a unique brand.	30.33	141.830	.787	.660	.972
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a luxurious brand.	29.99	135.734	.891	.817	.966
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a sophisticated brand.	30.07	138.778	.909	.837	.965
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a superior brand.	30.10	139.618	.870	.803	.967
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a precious brand.	30.12	137.392	.917	.855	.965
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a prestigious brand.	30.03	133.027	.932	.872	.964
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a brand for the few.	30.37	138.864	.876	.774	.967

Item Statistics

	Mean	Std. Deviation	N
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is an exclusive brand.	4.42	1.780	144
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a unique brand.	4.10	1.835	144
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a luxurious brand.	4.44	1.932	144
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a sophisticated brand.	4.36	1.761	144
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a superior brand.	4.33	1.789	144
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a precious brand.	4.31	1.811	144
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a prestigious brand.	4.40	1.983	144
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a brand for the few.	4.06	1.814	144

5. Reliability Analysis Mediator Scale

Case Processing Summary

		N	%
Cases	Valid	144	100.0
	Excluded ^a	0	.0
	Total	144	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.947	.947	4

Item Statistics

	Mean	Std. Deviation	N
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand indicates a social status.	4.24	1.958	144
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand makes one feel part of a social elite.	4.07	1.956	144
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - This brand is associated with successful, high-profile people.	4.17	2.015	144
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand is a symbol of success.	3.75	2.005	144

Inter-Item Correlation Matrix

	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand indicates a social status.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand makes one feel part of a social elite.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - This brand is associated with successful, high-profile people.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand is a symbol of success.
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand indicates a social status.	1.000	.861	.849	.763
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand makes one feel part of a social elite.	.861	1.000	.864	.785
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - This brand is associated with successful, high-profile people.	.849	.864	1.000	.788
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand is a symbol of success.	.763	.785	.788	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand indicates a social status.	11.99	31.252	.881	.790	.928
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand makes one feel part of a social elite.	12.16	30.974	.899	.816	.923
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - This brand is associated with successful, high-profile people.	12.06	30.430	.894	.805	.924
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand is a symbol of success.	12.48	31.832	.819	.672	.948

6. Factor Analysis Dependent Variable Scale

Correlation Matrix

	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is an exclusive brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a unique brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a luxurious brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a sophisticated brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a superior brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a precious brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a prestigious brand.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a brand for the few.
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is an exclusive brand.	1.000	.755	.801	.805	.769	.829	.851	.823
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a unique brand.	.755	1.000	.693	.746	.659	.735	.767	.742
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a luxurious brand.	.801	.693	1.000	.859	.808	.854	.863	.812
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a sophisticated brand.	.805	.746	.859	1.000	.833	.868	.870	.805
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a superior brand.	.769	.659	.808	.833	1.000	.864	.856	.778
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a precious brand.	.829	.735	.854	.868	.864	1.000	.875	.807
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a prestigious brand.	.851	.767	.863	.870	.856	.875	1.000	.833
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a brand for the few.	.823	.742	.812	.805	.778	.807	.833	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.955
Bartlett's Test of Sphericity	Approx. Chi-Square	1435.398
	df	28
	Sig.	<.001

Communalities

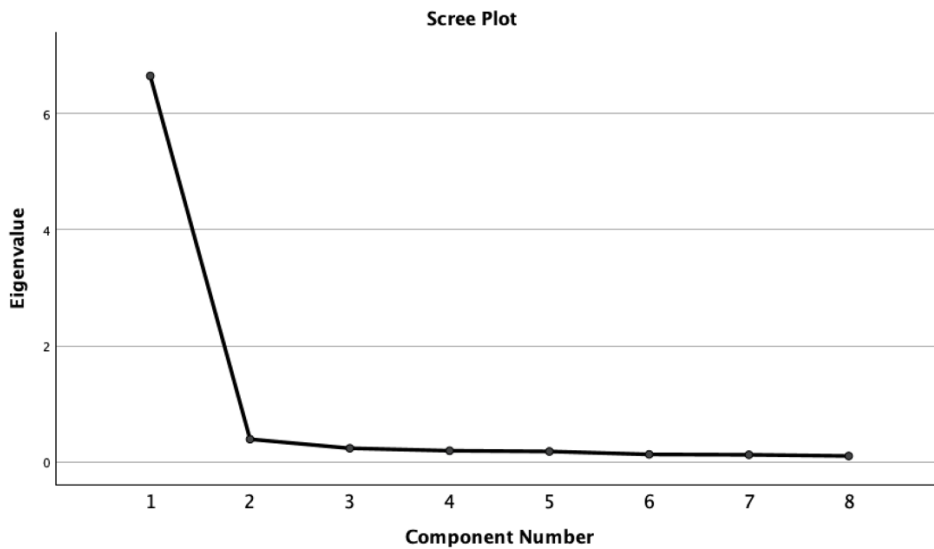
	Initial	Extraction
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is an exclusive brand.	1.000	.828
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a unique brand.	1.000	.693
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a luxurious brand.	1.000	.844
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a sophisticated brand.	1.000	.868
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a superior brand.	1.000	.813
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a precious brand.	1.000	.880
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a prestigious brand.	1.000	.902
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a brand for the few.	1.000	.820

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.649	83.110	83.110	6.649	83.110	83.110
2	.391	4.883	87.992			
3	.235	2.933	90.925			
4	.192	2.406	93.331			
5	.180	2.251	95.583			
6	.129	1.617	97.200			
7	.123	1.532	98.731			
8	.101	1.269	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix^a

	Component 1
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a prestigious brand.	.950
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a precious brand.	.938
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a sophisticated brand.	.932
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a luxurious brand.	.919
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is an exclusive brand.	.910
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a brand for the few.	.905
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a superior brand.	.902
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Orphéa is a unique brand.	.833

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

7. Factor Analysis Mediator Scale

Correlation Matrix

	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand indicates a social status.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand makes one feel part of a social elite.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – This brand is associated with successful, high-profile people.	Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand is a symbol of success.
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand indicates a social status.	1.000	.861	.849	.763
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand makes one feel part of a social elite.	.861	1.000	.864	.785
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – This brand is associated with successful, high-profile people.	.849	.864	1.000	.788
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand is a symbol of success.	.763	.785	.788	1.000

KMO and Bartlett's Test

Kaiser–Meyer–Olkin Measure of Sampling Adequacy.		.868
Bartlett's Test of Sphericity	Approx. Chi-Square	567.182
	df	6
	Sig.	<.001

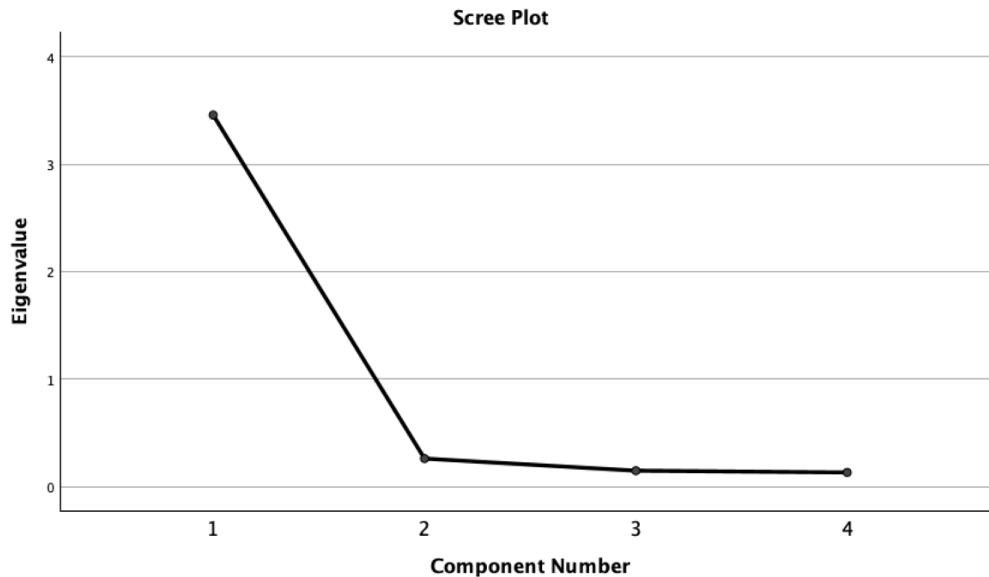
Communalities

	Initial	Extraction
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand indicates a social status.	1.000	.874
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand makes one feel part of a social elite.	1.000	.894
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – This brand is associated with successful, high-profile people.	1.000	.889
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: – Owning this brand is a symbol of success.	1.000	.801

Extraction Method: Principal Component Analysis.

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.457	86.431	86.431	3.457	86.431	86.431
2	.261	6.537	92.968			
3	.149	3.720	96.688			
4	.132	3.312	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix^a

	Component 1
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand makes one feel part of a social elite.	.945
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - This brand is associated with successful, high-profile people.	.943
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand indicates a social status.	.935
Please use the following scale (1 = strongly disagree, 7 = strongly agree) to indicate how much you agree with the following statements: - Owning this brand is a symbol of success.	.895

Extraction Method: Principal Component Analysis.^a

a. 1 components extracted.

8. Independent Sample T Test

Group Statistics

	Packaging Condition	N	Mean	Std. Deviation	Std. Error Mean
Mean_DV	Luxury Packaging	76	5.3684	1.05275	.12076
	Sustainable Packaging	68	3.1140	1.42337	.17261

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							95% Confidence Interval of the Difference	
		F	Sig.	t	df	Significance One-Sided p	Significance Two-Sided p	Mean Difference	Std. Error Difference		Lower	Upper
Mean_DV	Equal variances assumed	9.117	.003	10.88	142	<.001	<.001	2.25445	.20723		1.84479	2.66411
	Equal variances not assumed			10.70	122.435	<.001	<.001	2.25445	.21066		1.83745	2.67145

Independent Samples Effect Sizes

		Standardizer ^a	Point Estimate	95% Confidence Interval	
Mean_DV	Cohen's d	1.24149	1.816	1.424	2.203
	Hedges' correction	1.24809	1.806	1.417	2.191
	Glass's delta	1.42337	1.584	1.158	2.003

- a. The denominator used in estimating the effect sizes.
 Cohen's d uses the pooled standard deviation.
 Hedges' correction uses the pooled standard deviation, plus a correction factor.
 Glass's delta uses the sample standard deviation of the control (i.e., the second) ...

9. Process Analysis

Matrix

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 4
Y : Mean_DV
X : Cond
M : Mean_Med

Sample
Size: 144

OUTCOME VARIABLE:
Mean_Med

Model Summary							
	R	R-sq	MSE	F	df1	df2	p
	.6201	.3846	2.1062	88.7275	1.0000	142.0000	.0000

Model						
	coeff	se	t	p	LLCI	ULCI
constant	7.4168	.3766	19.6941	.0000	6.6723	8.1613
Cond	-2.2819	.2423	-9.4195	.0000	-2.7608	-1.8030

OUTCOME VARIABLE:
Mean_DV

Model Summary							
	R	R-sq	MSE	F	df1	df2	p
	.8994	.8089	.5439	298.3742	2.0000	141.0000	.0000

Model						
	coeff	se	t	p	LLCI	ULCI
constant	2.5093	.3697	6.7877	.0000	1.7784	3.2401
Cond	-.6812	.1569	-4.3406	.0000	-.9914	-.3709
Mean_Med	.6895	.0426	16.1675	.0000	.6052	.7738

***** TOTAL EFFECT MODEL *****

OUTCOME VARIABLE:

Mean_DV

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.6742	.4546	1.5413	118.3468	1.0000	142.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	7.6229	.3222	23.6618	.0000	6.9860	8.2597
Cond	-2.2545	.2072	-10.8787	.0000	-2.6641	-1.8448

***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y *****

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI
-2.2545	.2072	-10.8787	.0000	-2.6641	-1.8448

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
-.6812	.1569	-4.3406	.0000	-.9914	-.3709

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
Mean_Med	-1.5733	.2156	-2.0217	-1.1730

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

----- END MATRIX -----