LUISS

Dipartimento di Impresa e Management

Corso di laurea magistrale in Marketing

Cattedra Research Methodology for Marketing

Luxury Fashion and Innovative Sustainable Fibers: The Role of Design and Consumer's Narcissism in Green Product Innovations Acceptance

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ANNO ACCADEMICO 2022/2023

SUMMARY

1.Introduction

The present research aims to investigate the realm of sustainability in the luxury fashion industry. The compatibility of these two concepts has long been debated, and the objective of this study is to determine whether innovation can act as the bridge between the two worlds. More specifically, this study focuses on the innovative sustainable materials that can be utilized in the luxury sector. With the pressing need to reduce the environmental impact of clothing production, the focus will be on *green innovations*, more specifically the newest and most innovative fibers derived from renewable resources. However, there is a need to understand and analyze consumers' perceptions towards these fibers, in order to allow their wide dissemination in the luxury fashion industry.

With this purpose in mind, the present study aims to investigate consumers' willingness to buy towards products made of *wine leather* compared to products made of *recycled polyester.*

The first chapter of this thesis will focus on reviewing the literature in the field of luxury fashion and sustainability. More specifically, the *compatibility* of luxury and sustainability will be investigated and discussed from different perspectives, extensively discussed by various authors.

Following, there will be a particular focus on the most prevalent green innovations in the fashion industry, including 3D printing, air dyeing techniques, upcycling, and the use innovative materials, to understand the potential integration of these green innovations within the luxury world and their positioning in the luxury fashion market. Additionally, a detailed discussion will be conducted on the most prominent sustainable innovative fibers such as Orange fiber, Mylo, Pinatex, and their employment in todays' luxury fashion landscape with an analysis on the major players which are incorporating these innovative materials into their collections.

At the end of the second chapter, three potential *drivers* that can affect the acceptance of these innovative fibers in the world of luxury fashion will be discussed, specifically focusing on the *design* consumers' *narcissism* and the *environmental concern*.

In the third chapter, a conceptual model will be constructed along with the corresponding hypotheses regarding sustainable innovative fibers, more specifically comparing *wine leather* and *recycled polyester*. Moreover, the moderating role of design and the mediating role of Narcissism, in the relationship between the type of fiber and consumer willingness to buy, will be investigated.

These hypotheses will be tested using data obtained through a quantitative survey administered to a sample of 238 individuals.

The goal of this study is to understand whether wine leather, when accompanied by a similar design, can trigger a higher willingness to buy among consumers and, whether this relation is mediated by narcissistic traits of consumers.

In the last section, the results will be discussed along with their academic and managerial implications that are useful for advancing eco-sustainability in the world of luxury fashion.

LITERATURE REVIEW

2.1 Luxury Fashion and Sustainability

The match of luxury and sustainability has been considered unclear since both definitions are still open-ended. There is not a specific and worldwide concept of luxury (Amatulli et al., 2017) since it presents two sides of the same coin. From one side, luxury has been defined as unnecessary and excessive and associated with wants and desires, rather than necessities (Mortelmans., 2005). A world which is frivolous, self-indulgent, and wasteful (Alghanim & Ndubisi., 2022). On the other side, the concept of luxury has always embraced the essence of high quality (Ko., 2019), durability, craftmanship (Kapferer., 2010) and rarity (Heine., 2012). For instance, Finn (2011) reports the durability of luxury goods which are most of the times passed down from generation to generation, therefore not discarded. As result, luxury consumers hold the view that recycle labeling is unnecessary due to their belief that the superior materials utilized in luxury goods should ensure their durability and longevity (Kapferer & Bastien, 2012).

From these observations, it is reasonable to conclude that luxury is considered as controversial (Ricca & Robins, 2012 ; Gardetti, 2020).

As well, the concept of sustainability is open-ended and comprehends characteristics such as inclusiveness, prudence, security, and equity (Gladwin et al., 1995). It is related to the ability of a certain community to sustain its existence by effectively managing the natural resources available to them (Virtanen et al., 2020). Sustainability involves establishing and preserving conditions that facilitate productive coexistence between humans and nature, thereby enabling present and future generations to meet their social, economic needs in a fulfilling manner (Ivan et al., 2016): it includes the preservation of natural resources in consumption, and it is commonly associated to altruism, ethical consideration, temperance, and moderation (Alghanim & Ndubisi., 2022).

However, the question that arose to several scholars is: *are luxury and sustainability compatible?* Following the double facets of luxury, the answer could be contradictory: luxury and sustainability as perfect allies or bitter enemies. In the former case, the answer is positive as we consider the historical and more ancient values of luxury such as craftmanship, high-quality, and durability that sound in harmony with the dimension of sustainability and seem to require small and refined productions, locally implemented by artisan, not considered as a threat to the planet (Kapferer., 2010, 2015). As evidence, most of French and Italian luxury is produced in Italy to guarantee the highest, premium quality (Amatulli et al., 2017). Within this framework, luxury and sustainability may be considered as interdependent, with luxury brands benefiting from their access to limited natural resources while also taking care of the environment (Guercini & Ranfagni, 2013). Moreover, a sustainable image could be considered as a competitive advantage of differentiation in the landscape of

fashion players. A perfect example is the luxury brand Stella McCartney, born sustainable and, therefore, proof that the two concepts can easily and profitably coexist (Alghanim & Ndubisi., 2022).

In the second case, the answer results negative if we consider luxury as synonym of excess, opulence, and superficiality (Kapferer & Michaut., 2015). Many studies demonstrated that customers purchase luxury goods mainly for the status and social prestige, showing a lack of interest on ethics and sustainability (Davies et al., 2012). From this perspective, the value of luxury goods is often determined by the scarcity and rarity of the materials used in their production, such as leather, skins, pearls, animal-hair which contribute to animal cruelty and biodiversity loss. Consequently, luxury items are often seen as superfluous, non-essential, excessive, and frequently criticized for promoting social inequality since reserved for a selected and privileged minority (Kapferer, 2010 ; Kapferer & Michaut-Denizeau, 2014 ; Alghanim & Ndubisi., 2022).

Despite, the inconclusive research and contradictory perspectives on the topic, the necessity of sustainable development in luxury fashion is undisputable. In recent years, we assisted to the rise of "the new luxury" which consists in more affordable and large-scale commodities and services that have a premium position in the market and are targeted at mass segments of consumers so, the new brands strategies include mass production, profits maximization and quick return on investments (Gardetti., 2020). It is here that the concept of "democratization" of luxury comes to life as the reduction of exclusivity, self-differentiation, and uniqueness, due to the wide availability and access of products (Shukla et al., 2022). This process involves creating more affordable luxury items to supply middle class as almost an attempt to create equality among society (Rosendo-Rios & Shukla, 2023). As consequence, many luxury fashion brands, that used to be family businesses, were taken over by large conglomerates (Gazzola et al., 2020) and as a result, a change of route has occurred: they started to have a relevant impact on production and consumption structure, doubling their collection pace from two to eight collections per year, to compete with fast fashion firms. As evidence, many brands such as Prada, Coach and Burberry have expanded their production to low-cost factories in China (Fernie and Perry, 2019), moving away from the traditional value of craftmanship that for decades has characterized the luxury fashion industry. Moreover, luxury brands such as Versace, Balmain and Marni have entered into licensing or collaborative agreement with popular high street retailers like H&M. The objective of these agreements is to produce more affordable versions of their luxurious products that cater to wider middle-class segment of customers (Rosendo-Rios & Shukla, 2023).

Criticism has been directed towards luxury fashion companies for their negative impact on biodiversity, as well as their contribution to waste and pollution through their manufacturing processes. Many practices like engaging in animal testing, exploiting employees, and destroying unsold stock for marketing purposes have been condemned (Kerr & Landry., 2017).

Hence, luxury brands have recognized the growing importance of environmental and societal impact in consumers' consumption choices and can no longer disregard this topic, as they have typically done during the past (Athwal et al., 2019). According to Kim (2014) and Ko (2019), luxury fashion brands need to focus

on environmental issues to create tighter and longer relationships with their customer base (Achoubou & Dekhili., 2013).

A potential approach could be to shift the sector's mindset and operations away from the traditional linear model of create, sell, use, and dispose, towards a more circular model that prioritizes resource reuse and reintegration (Donato et al., 2020). This would involve moving from a "take-make-waste" approach to a "reduce-reuse-recycle" framework, where resources are kept in use for as long as possible and materials are repurposed or regenerated instead of being discarded.

By combining luxury and sustainability, luxury customers, known for purchasing goods mainly for the status and social prestige, could benefit from the incorporation of ethical considerations into their actions and decisions, which would enhance their self-image and overall sense of contentment (Olorenshaw, 2011). Therefore, many brands are incorporating sustainable practices (social and environmental) into their value chain (Alghanim & Ndubisi., 2022).

Brands such as Chanel, Hermès and Dior have been classified as the worldwide leading luxury brands that consumers view as more sustainable (Statista, 2022)[1].

For instance, according to Chanel's Mission report (2021)[2], the luxury *maison* has determined a set of goals to achieve within 2030 which consist in, primarily, reducing their own carbon emissions of 50%, value chain emissions by 40% and using 100% of renewable electricity by 2025.

Moreover, the success of the French luxury brand Hermès can be attributed in part to their ownership of suppliers and tanneries for their leathers and exotic skins. This presents a micro-level implementation of environmental sustainability by establishing dependable infrastructures and implementing replicable practices for the management of scares resources (Franco et al., 2020).

Besides the above-mentioned evidence, renowned brands and founders of the luxury fashion industry, it is necessary to also mention the new luxury entrepreneurs that are emerging with remarkable perspective on sustainable development and innovation, as added values (Li & Leonas, 2019).

Examples are Brother Vellies[3], an American brand which creates luxury footwear and accessories using traditional African techniques and sustainable materials like vegetable-tanned leather and recycled plastic bottles or, Mara Hoffman[4] which is committed to sustainability by producing clothing made of sustainable materials like organic cotton and linen, avoiding using any fur, leather, and feathers (Donato et al., 2020).

[1] Available at: https://www.statista.com/statistics/1323040/most-sustainable-luxury-brands/ 20/02/2023.

[2] https://services.chanel.com/media/files/Chanel_1_5-Performance-Update2021.pdf

[3] https://brothervellies.com/pages/sustainability

[4] https://marahoffman.com/pages/our-story

They are disrupting the conventional approach to innovation in the luxury industry by incorporating sustainable development principles into their business strategies (Li & Leonas, 2019).

This highlights the importance for all luxury fashion brands, particularly the leading ones, of *merging* the concepts of sustainability and innovation (Arribas et al., 2022) in order to remain competitive and retain the attention of customers who are increasingly concerned about such issues and are translating these concerns into pro-environmental behaviors (Yoo, 2021).

2.2 Luxury Fashion and Green Innovations

As previously discussed, the luxury world is, nowadays, characterized by mass production and industrialization, defined as "democratization" of luxury (Alghanim & Ndubisi., 2022). This luxury of the masses (Silverstein & Fiske., 2003) led, not only to environmental and social issues but also to distancing from the original values of exclusivity, craftmanship and high-quality (Truong et al., 2009).

Therefore, technological innovation in the luxury fashion industry is important for creating a better experience for consumers (Bertola & Teunissen., 2018; Ikram., 2022), possibly leading to the resurgence of traditional values, ensuring, at the same time, a progressively sustainable future through green economy. A way of obtaining this is by shifting the linear model of production to a more *circular model* of reuse and reintegration of resources (Pal & Gander, 2018).

Hence, green innovations have been recognized as one of the key factors affecting environmental and economic success in organizations and communities (Lee & Kim., 2011; Takalo et al., 2021), having a positive impact on consumers who appreciate environmentally friendly production, and prefer the products of companies that are more active in green activities (D'angelo et al., 2022).

The term "green innovation" or "eco-innovation" refers to the development of new technologies and production processes aimed at minimizing environmental risks such as pollution and negative impacts of resource utilization (Castellacci & Lie., 2017; Takalo et al., 2021).

Luxury fashion brands are increasing their effort to reduce their environmental impact as future success of fashion industry strongly depends on the environmental weight of the entire products' life cycle (Muthu., 2016). However, the challenge is not easy to face, as in the case of luxury fashion and in general of luxury industries, innovation must be respectful of brand tradition (Bastien & Kapferer., 2012). Also in this case, there seems to be an incompatibility between luxury and innovation from a conceptual perspective. While luxury is associated to tradition, history and heritage, innovation is synonym of development, change and novelty. This tension could have deleterious effect on innovations projects (Bastien & Kapferer., 2012). Simultaneously, luxury fashion brands are facing considerable pressure due to a resistance towards traditional industry practices and need to implement more substantial organizational changes in response to evolving social and environmental needs, technological advancements, and unstable business environments. Considering this, luxury fashion brands need to devise innovative solutions instead of relying on standard and

generic business models (Arribas et al., 2022). Evidence is found on data about customers trends of 2023 in which innovative sustainability assumes a critical role (Statista, 2022).[5]

Moreover, the luxury market is witness of a significant contribution from the younger generations (McCormick & Ram, 2022): Gen Z, but mostly Millennials, will account for 45% of sales by 2025.

Several studies highlight two main trends of this generations which are *sustainability* and *innovation* (Wood., 2013) (Brand et al., 2022), demonstrating how consumers from Generation Y and Z are most influenced and invest more in fashion brands that implement innovative sustainable business practices. According to Kamalanon (2022), innovative customers tend to adopt green innovation more readily than traditional customers hence, customers' innovativeness is a strong influential factor on purchase behavior. Considering the innovativeness of Gen Y and Z consumers (Priporas, 2017), there is evidence to suggest that they are willing to adopt more sustainable practices and demonstrate a strong preference towards innovative products and processes (Arora & Manchanda., 2022).

At this stage, we could conclude that, albeit luxury and innovation seem to be conceptually in conflict, the industry has the imminent necessity to implement green innovations to satisfy the needs and get the attention of their future customers, without neglecting the brand tradition.

The fashion industry has a significant opportunity to promote the growth of a green economy by innovating at every stage of the production process. In 2020, the Global Fashion Agenda engaged 94 companies, representing 12.5% of the global fashion market and, each of these companies set specific goals such as enhancing water efficiency, producing sustainable fibers, and establishing more effective systems (Ikram, 2022). Through these innovations, the luxury fashion industry, can gain the possibility to reduce their footprint, embrace the ancient values of luxury (high-quality, exclusivity and craftmanship) and satisfy the new generation concerns and needs.

According to Chen (2008), green innovations can be divided in "hardware" and "software" innovations. Companies can achieve green innovation in their hardware by utilizing eco-friendly materials, developing energy-efficient technologies, and reducing harmful pollutants during their production processes. On the other hand, green innovation in software can be achieved by providing environmentally friendly services, implementing sustainable management practices, and promoting eco-friendly products and services through green marketing strategies (Chen., 2008) (Chen et al., 2021). In this study there will be a focus on the hardware innovation, since fashion's environmental footprint is one of the highest among all sectors, therefore radical practices are needed (Statista, 2022)[6].

[5] Available at: https://www.statista.com/study/125082/consumer-trends-2023-sustainability-edition/ 10/03/2023.

[6] Available at: https://www.statista.com/statistics/1305696/apparel-industry-co2e-emissions/ 15/03/2023.

The literature identifies several green innovations that will be analyzed within the luxury fashion context: *green technological innovation, green process innovation, green design innovation and green product innovation* (Burki, 2018).

The green technological innovation (GTI) consists in directing investments towards the development of technologies that promote energy and water conservation, reduce noise, and waste, and mitigate air pollution (Qi et al., 2010). An example of GTI, implemented in luxury fashion, is the *3D printing*.

This process involves the conversion of digital designs into tangible products using 3D technology, which can significantly reduce textile waste compared to traditional design technologies and reduce pollutant emissions and water contamination/usage and, simultaneously, reduce costs and enhance rapid prototyping. This technique offers immense creative possibilities for designers, enabling them to produce more innovative and exciting designs (Yu, 2020; Ikram, 2022). A perfect example, in luxury fashion, is the Dutch designer Iris Van Herpen [7] who created a whole collection in 3D printing (Fig. 1).

Figure 1 Iris Van Herpen, Met Gala 201

This innovation could be widely accepted by luxury fashion industry as it associated to creativity and extravagance, typical of luxury (Loureiro et al., 2014) and at the same time, it could be acclaimed by new generations.

[7] https://3dprintingindustry.com/news/iris-van-herpen-3d-printed-gowns-take-to-the-2022-met-gala-red-carpet-209142/

The second green innovation relates to design innovation. Green design innovation (GDI) adheres to the 3Rs principles (reduce, recycle, and reuse) and provides customers with a fundamental assurance of products' quality. This conformity ensures that the product meets all necessary environmental and health standards (Hu & Fu, 2013). A typical green design process is recycling; Recycling *"refers to the breakdown of product into its raw materials for the raw material to be reclaimed and used in new products"* (Payne, 2015).

Figure 2 Bottega Veneta Recycled Paper Bag

However, a study of Achobou & Dekhili (2013), demonstrated how luxury buyers do not appreciate the use of recycled materials for luxury products since this procedure reduces the products' value (downcycling) and, consequently it undermines the fundamental essence of luxury, which is characterized by its high-quality, rarity and exclusivity. Therefore, an example of GDI in line with luxury brands' core values is the *upcycling* technique. The upcycling is the practice of converting waste materials or useless products into new materials or products of better quality so that, to the products "it's given more value, not less" (Kim, 2014). As evidence, the study of Adıgüzel & Donato (2021), shows how, for luxury customers, the attitude and purchase intention towards the upcycled products is higher if compared to the recycled ones. Hence, many fashion luxury brands are employing this innovative technique. Examples in the industry are, not only the famous Gucci brand, who launched an upcycling initiative of waste leather and textiles generated during the production process (Adıgüzel & Donato, 2021) but also, emerging brands like the British designer, Adam Jones who produced ready-to-wear unisex apparel by upcycling vintage tea towels and blankets (Phau et al., 2022). Moreover, the idea of upcycling provides a chance for designers to take a leading role in addressing the issue of textile waste, while satisfying the constant need of customers for new fashion (Khandual & Pradhan, 2019).

The third green innovation analyzed is the green process innovation. This type of innovation enables businesses to modify their product manufacturing processes to produce eco-friendly products that meet specific environmental targets (Abdullah et al., 2016).

In the manufacturing process of clothing, there is a specific step which is considered among the most polluting: the dyeing process. Not only for contributing to 15-20% of the total waste of water, but also because it is one of the most chemically intensive process on earth (Mia et al., 2019). A solution seems to be the "Air Dyeing" or "Dry Dyeing" (Kant, 2011) which is a process that uses air instead of water to dye fabrics: uses 95% less water, requires 87% less energy, emits 84% less greenhouse gases and reduces damages to goods. In luxury fashion this innovation could be the best alternative to natural dyeing which guarantees only a limited and dull range of colors. On the contrary, the Air Dying process could allow luxury designers to produce clothing with vivid colors and hues worthy of their collections (Kant, 2011). Examples of fashion brands which started to innovate in this area are Adidas and Nike, while no evidence of such process implementation, by luxury brands, is recorded. However, it has been demonstrated that green process innovation has a positive impact on green product innovation and, further, that both kinds of innovations can improve firms' financial performance (Xie et al., 2019). The implementation of these two complementary innovations could bring a greater competitive advantage to those firms applying both.

The last type of green innovation is called "Green Product Innovation". The concept of GPI involves different modifications implemented in new product design or in modifying existing ones to minimize their negative impact on the environment (Kammer, 2009; Burki, 2011). This includes creating energy-efficient products and using eco-friendly or recycled materials in production. Consumers are increasingly demanding fewer polluting products with longer life spans (Chen, 2008; Khan et al., 2021) and, according to Chen (2010), in the eyes of customers, having a green image is a significant factor affecting customer satisfaction and expectations, increasing customer's loyalty. However, customers often refuse to pay a premium price for green products characteristics (Dangelico & Pujari, 2010). Consequently, for brands that seek to introduce innovative green products, retaining their customers could prove to be a very challenging task (Dangelico & Pujari, 2010; Xie et al., 2019).

The aforementioned argument may hold true for various types of goods, including fashion items. However, it may not be valid if applied to luxury goods, as the opposite reasoning could sound more appropriate. There is a generic awareness that consumers are willingness to pay a higher price for luxury goods because a luxury product fulfils all their emotional, symbolic, and experiential needs (Kohen, 2001; Pencarelli et al., 2019). Consequently, the categorization of a product as a luxury good is determined to a certain extent by its intrinsic appeal, rather than solely by its function as a status symbol. Furthermore, according to Kemp (1998) luxury goods exhibit a lower degree of demand elasticity in response to price changes compared to non-luxury goods. Hence, we can deduce that what Dangelico and Pujari (2010) states, could not be valid for high-end customers who could more easily accept more expensive sustainable clothing.

The context of green product innovation involves the sourcing of raw materials from nature and then returning them back to nature in a sustainable way (Ahmad et al., 2020). Vehmas et al. (2018), suggested that a shift from current manufacturing processes to new ones that prioritize the reuse and recycling of renewable

resources can significantly reduce environmental impacts (Ahmad et al., 2020). Therefore, among all the mentioned innovations that currently impact business models in fashion, products innovation, especially the use of alternative sustainable fibers, seem to be the most prominent one (Todeschini et al., 2017) and therefore, it will be the focus of this study.

We have analyzed green technology innovation with 3D printing, green design innovation with the Up-cycling method and green process innovation with Air-Dyeing technique and, despite the still limited dissemination of these techniques by luxury brands, the typical process for adopting innovations involves an initial evaluation and, if the assessment process results positive, the innovation will be incorporated by companies and customers on regular basis (Lee et al., 2011).

2.3 Innovative Sustainable Fibers

Luxury fashion has long been associated with the utilization of precious and exquisite materials that align with the brand's rarity and high-quality standards. It is not solely limited to perfumes, jewelry, and clothing, but also encompasses the use of fine fibers (Rusinko & Faust, 2016). Fibers show a tangible connection to some of the most pressing issues of our world such as climate change, waste generation, and water scarcity (Fletcher and Grose, 2012; Muthu and Gardetti, 2016).

For instance, luxury brands' most famous and sold items are made of leather (Thomas, 2007) that is produced by modifying the protein structure of animal hides, through a series of physical and chemical treatments. In addition to animal skin, there is also synthetic leather which requires the use of harmful chemicals and fossil fuels and have a limited end-of-life options (Jones et al. 2020) (Elkhateeb et al., 2022). Animal skin production as well as causing damages to the environment, it harms humans using toxic chemicals during the dyeing process. Consequently, it seemed necessary to develop non-animal derived materials that possess similar properties of leather. According to Mckinsey[8], the production of fibers, in fashion, is the main driver of biodiversity loss. The industrialization of fashion companies, included luxury ones, has caused huge problems to our eco system and as mentioned, green innovations can make the difference in reducing their environmental footprint. If companies do not change their behavior, it is predicted that we will enter a sixth mass extinction where millions of species will be lost (Fletcher & Grose, 2012). Therefore, the central actors are fashion brands that through the production of innovative sustainable fibers can provide a positive impact. These innovative fibers are extracted from natural renewable resources such as bastes, seeds, fruit (Muthu & Gardetti, 2016). This innovation has the possibility to address two main issues: the environmentally detrimental demand for fibers and the excess waste from natural resources (Stenton et al., 2021). One of the most notable types of waste is generated by the food industry (Provin et al., 2021). Hence, using food waste for creating and dyeing

[8] https://www.mckinsey.com/industries/retail/our-insights/biodiversity-the-next-frontier-in-sustainable-fashion

clothing can be a preferable option as it is not only biodegradable but also less problematic when disposed of or burned (Abdelmeguid et al., 2022). Discarded skins and pulps of fruit has uncovered a plentiful source of raw materials (Wood, 2019). In the past five years, the industry witnessed to the rise of innovative materials, however, it is only today that this innovation is becoming more strategic and viable with major players in the industry starting to invest in emerging innovators in this field (D'Itria & Colombi, 2022). One main character is the colossus of fast-fashion, H&M who has collaborated with textile developers to create its Conscious Exclusive Collection, incorporating bio-based fibers (Stenton et al., 2021).

Examples of these innovative fibers, coming from food waste, are pineapple fiber, orange fiber, mycelium fiber (mushroom), grape and apple fiber.

The pineapple leaf fiber is a well-known vegan fiber obtained from pineapple leaves which would otherwise be discarded. This innovative material provides a sustainable source of income for farmers and offers a cruelty-free alternative for clothing, bags, and shoes [9]. This fiber is considered very strong, creamy, lustrous, and more delicate in texture than any other vegetal fiber, so much that pineapple silk is considered the most prestigious fabric in Philippine and used for formal wear (Muthu and Gardetti, 2016). Many fashion brands are using this fiber in their collections such as the Spanish giant of fast fashion, Zara, who created a whole collection of sneakers, sandals and low-cost bags made of pineapple fiber while, on this matter, luxury brands are still lagging behind. The only brand in the luxury fashion industry that is investing in this innovation is the German fashion house Hugo Boss. The brand recently launched a new men collection of shoes[10] made of pineapple leaf collaborating with the American company Ananas Anam.

Figure 3 Hugo Boss - Piñatex Collection

[9] https://www.ananas-anam.com/

[10] https://group.hugoboss.com/en/responsibility/news-and-downloads/latest-topics/message/hugo-boss-launches-innovative-shoe-made-of-pineapple-leaf-fibers

Differently form pineapple fiber, the orange fiber is more widespread: it is the result of a sustainable innovation solution of reusing waste from orange peels, lemons, and grapefruits. The Italian start-up, inventor of this innovation[11], have created cellulose fibers using nanotechnology, which can be used to produce innovative fabrics for clothing by replacing polluting raw materials with natural ones (Todeschini et al., 2017). While the interest in using pineapple seems remote, luxury brands show a higher awareness and commitment to the use of orange fiber in their products. A main example is the brand Ferragamo which, in 2017, launched the innovative "Orange Fiber Collection" [12] becoming the first brand to use the exclusive orange fiber fabric.

Figure 4 - Ferragamo Orange Fiber Collection (2017)

The last critical example is the Mycelium fiber, a vegetative part of the mushroom consisting in white filaments that can be used to create a leather-like material. Mushroom-derived leather substitutes are considered an ethical and environmentally friendly alternative to traditional leather (Jones, 2020) (Elkhateeb et al., 2022). This eco-friendly material can be produced without the use of toxic substances and is biodegradable and compostable. Therefore, luxury brands are implementing this innovation such as the renowned Stella McCartney brand who adopted this new technology called Mylo, from Mycelium fiber, that can be produced without generating waste associated to animal hide production (McCartney, 2019; Elkhateeb et al., 2022). The rise of this material has been possible thanks to a consortium formed by Adidas, Stella McCartney, Lululemon, and Kering Group (D'Itria & Colombi., 2022).

[11] https://orangefiber.it/it/

[12] https://group.ferragamo.com/en/news/2017/orange+fiber

Figure 5- Stella McCartney Mylo Bag (2022)

These innovations in fabrics production are transforming the landscape of fashion sustainability.
However, for many reasons, luxury fashion companies still face difficulties in incorporating these sustainable materials into their designs. First and foremost, sustainable materials are more costly than conventional fabrics. Second, the use of these fabrics is limited because of the lower availability compared to traditional ones (Gam & Banning, 2011) and finally, there is still little research examining whether consumers will be accepting these materials.
Therefore, the present research aims to understand how customers perceive and judge these innovative fabrics used by fashion companies. Several studies confirm that consumers education and awareness about these topics is still limited. According to Sijtsema (2020), consumers are not totally aware about the meaning of Circular Economy and this lack of awareness could be an obstacle to the development and diffusion of green products made of innovative fibers. Beyond the unfamiliarity of consumers, many authors investigated the perception of customers towards products made of recycled and reused materials. The feeling that emerges is contamination and disgust (Meng & Leary, 2021). Consumer's response to goods that have been touched by others are often deemed to be less desirable. This perception of contamination significantly affects consumer choice. This concept is valid also for apparel made of waste materials that have been probably in contact with previous users and seen as contaminated and disgusting, leading to reduce purchase intentions (Underhill, 2000) (Meng & Leary, 2021). These feelings are more likely to exist for products that are in constant contact with the skin. Although certifications represent a good initial measure to promote sustainable materials and to transform consumers' attitudes and beliefs about companies' sustainable actions and

intentions (Ansett, 2007; Todeschini et al., 2017). Green product certifications serve the purpose of verifying that a product adheres to specific criteria and delivers an ecological advantage (Vierra, 2016). Several certification programs and product labels evaluate products thought various criteria that encompasses their entire life cycle. Such criteria comprise the energy consumption, the proportion of recycled materials, the amount of air and water pollutants emitted during production, usage, and disposal (Vierra, 2016). This information could help consumers to overcome the sense of contamination.

However, these feelings of disgust and contamination have been verified on generic fashion customers, hence may be not valid for luxury customers, since they associate luxury brands to prestige and premium quality, opposite concepts from contamination and disgust. As evidence, according to Hartmann and Apaolaza-Ibáñez (2012), the acceptance of these innovative fibers could be encouraged by brand image and high- quality, offering experiential and symbolic benefits more than functional ones, which is a typical strategy of luxury brands. Perceived product quality has a direct effect on willingness to purchase green products (Tseng & Hung, 2013; Nam et al., 2017), therefore, we could hint that green fashion innovations could be more accepted if implemented by luxury brands than by non-luxury ones.

Customers expect high quality, style and luxury also from green clothing, hence luxury brands could become leaders in using innovative fibers in their collections, putting emphasis on artisanal quality and timeless design (Joy et al., 2012; Vehmas et al., 2018).

2.4 Factors affecting GPI Acceptance

As mentioned, luxury brands are still facing difficulties in incorporating these sustainable materials in their collections and, despite the benefits of GPI, they could face difficulties in combining business competitiveness with sustainability (Chai et al., 2022).

Hence, the aim of this study is to understand which factors could enhance customers' willingness to buy and perceived quality of these green products. Three relevant drivers of customers' willingness to buy green products innovations will be deeply analyzed: Products' *design aesthetic*, consumers' *narcissism,* and *environmental concern.*

2.4.1 Traditional vs Innovative Design

Product design is the art of assembling operational, financial, technological, and emotional components to produce a unique item (Gilal et al.,2022; Jindal et al., 2016). The importance of design and aesthetics cannot be overstated when it comes to clothing consumption (Eifler & Diekamp, 2013). Consumers form their initial impression of a product based on its design, which can quickly communicate the product's advantages (Creusen & Schoormans, 2005).

Several researchers have emphasized the significance of design and its impact on purchase intention and customer satisfaction, highlighting the essential role that design plays in shaping consumers' perceptions and action towards a product or brand (Homburg et al., 2015; Sabir, 2020; Gilal et al., 2022). However, sustainable apparel is frequently perceived as unfashionable or unstylish by consumers (Rausch & Kopplin, 2021; Connell, 2010) who perceive aesthetic risk. This perceived risk could be related to the stereotype associated to the ecological clothing emerged in the 1970s. This clothing was connected to a particular group of consumers who expressed their political stance against consumerism through a distinctive "eco-look". The clothing was made from rough fabrics and was considered of bad taste (Eifler and Diekamp, 2013). As a result, this eco-style appeared to be far removed from the luxurious world of fashion. Despite the evolution of customers perceptions during time, this stereotype seems to be still alive.

Therefore, fashion brands should focus on this aspect since aesthetic design appears to be crucial in customers' purchase decisions, while sustainable touch is considered an "extra benefit" by consumers, rather than a determining factor in making a purchase (Eifler & Diekamp, 2013).

Industry experts and researchers differentiate between luxury design and fashion design. While fashion is characterized by seasonal products that variate frequently and dramatically based on the latest trend, luxury is associated with long-lasting items that feature an iconic and timeless design, which is considered an essential factor for their customers (Kapferer & Bastien, 2017) (Kusumasondjaja, 2020). Evidence is found in a study conducted by Halwani (2019) among luxury customers of different age groups, who reported a strong preference for traditional timeless design because seen as synonym of heritage.

At this stage, it seems necessary to remark the needing of merging *sustainability* and *innovation.* However, according to Richards (2003), innovation differs from creativity since it aims transform and implement rather than simply explore and invent. The brand Chanel is a fitting example showing that the real innovation should be connected to the use of new fabrics, new techniques rather than to the mutation of design aesthetic (Finn, 2011) that, in its case has remained intact since 1930s.

This strategy could strongly contribute to the dissemination and success of innovative sustainable fibers in luxury fashion.

Further evidence is found in the study of De Angelis et al. (2017) who demonstrates the impact of design similarity when introducing a new green product. More specifically, when the new green product design resembles the previous, classic models of the brand, customers' brand attitude and purchase intention, towards green products, increase. The reason could lie in the symbolic dimension.

Symbolic values can be the key determinant for green product selection (Creusen & Schoormans, 2005) and the reason why product design is considered so important is related to the sphere of terminal values: self-expression, social advantage, prestige (Phau et al., 2022), a sense of enhanced well-being by donning luxury brands as these products can elevate their social status by associating them with their desired social groups (Makkar & Yap, 2018; Kusumasondjaja, 2020). In other words, wearing luxury brands allows customers to

signal their affiliation with a particular social class, which can contribute to their sense of satisfaction and esteem.

As evidence, an experiment of Phau et al. (2022) analyzes customers' attitude towards Burberry generic shirts and Burberry shirts made of recycled fabrics. Recycled shirts are made of leftover fabrics, materials from previous collections and different design from the generic shirt. However, luxury customers perceive Burberry traditional shirts as aesthetically more attractive and manifest a stronger social and emotional benefit towards them. Therefore, the reason why apparel made of recycled materials is not completely accepted by luxury customers could be related to the non-resembling design aesthetic. According to Vehmas et al. (2018), customers value the concept of creating new clothing items from innovative resources and believe that circular products should become "the new normal". However, they emphasize the importance of ensuring that circular garments are comparable, in quality and appearance, to those made from traditional fibers, expressing the desire for these collections to be stylish and on par with the classic items. There is the belief that sustainable fashion "does not look like normal fashion" hence, customers are less likely to accept it.

A suitable example is the "Petit H" collection, created by Hermès, made of recycled materials[13]. All the items created are made of materials and fabrics available in the atelier, making them unique and innovative. However, there is an insufficient reference to the Hermès iconic and traditional design aesthetic (Fig. 6).

Figure 6 "Petit h" vs Hermès "In- the-Loop"

To facilitate the mainstream adoption of sustainable clothing, it is imperative to normalize its design (Harris et al., 2016). This strategy can help to overcome existing stigma and stereotypes that hinder its widespread uptake and integration into the fashion industry.

[13] https://www.hermes.com/it/it/category/petit-h/#|
https://www.hermes.com/it/it/category/donna/borse-e-piccola-pelletteria/borse-e-pochette/#|

In accordance with this concept, the brand Gucci has unveiled the "Off the Grid" collection [14], a line of products made of recycled, regenerated, organic and sustainable materials that stay true to the iconic Gucci design aesthetic. Among the collection's offerings are revamped versions of Gucci's classic 1977 tennis sneakers, instantly recognizable models of the Italian fashion house (Fig.7). Knowing the importance of design aesthetic in customer decision journey, luxury fashion brands like Gucci, do not want to make ethical choices if this necessitates inconvenience to them (Niinimäki, 2010).

Figure 7 Gucci Sneakers ("Off the Grid" vs "Tennis 1977")

Finally, Stella McCartney brand, that was born sustainable, never used animal leather proving that is possible to create prestigious, good looking, luxury items being green, *"I think one of the biggest compliments is when I know people go in and buy a Falabella bag or a pair of shoes, or a faux leather skirt, and they have no idea they're not real leather"*[15] *(Stella McCartney, 2017).*

In the same way, other luxury brands can normalize their green products, made of innovative fibers, making them resemble their traditional, iconic, and timeless design.

2.4.2 Narcissism

Narcissism is the personal inclination towards an unwarranted and exaggerated sense of self-importance (Lee et al., 2013; Fastoso et al., 2018) which is being recognized as a significant predictor of consumer behavior (Twenge & Campbell, 2008). Narcissism means showing off to reveal oneself (Buss and Choido, 1991). Narcissists are highly concerned about their selves (Wink, 1991; Fastoso et al., 2018) with an inherent

[14] https://www.gucci.com/it/it/st/capsule/circular-line-off-the-grid
[15] *https://www.stellamccartney.com/it/it/sustainability/vegetarian-leather.html*

sense of self-absorption, exhibitionism, and superiority (Ackerman et al., 2011). Pincus and Lukowitski (2010) distinguish between two types of narcissistic: "healthy" and "unhealthy". Healthy narcissists are characterized by a charming personality, extroverted nature, and self-confidence. They tend to be ambitious, content, and successful as they hold positive illusions about themselves and downplay information that contradicts their positive self-image. On the other hand, unhealthy narcissists are described as grandiose, arrogant, haughty, and potentially unhappy. Their personality traits hinder them from forming and maintaining long-term social relationships, making sound decisions, and having an accurate understanding of themselves. This study will focus on healthy narcissism.

Several researchers analyzed the connection between narcissism and luxury, founding a positive correlation between them (Fastoso et al., 2018). Luxury is considered unnecessary and excessive as it is associated with wants and desires, rather than necessities (Mortelmans, 2005) and, as we previously mentioned, luxury consumers try to identify themselves with luxury brands images or products (Kang & Park, 2016) and, by consuming luxury brands, they signal their affiliation with a particular social class, which can contribute to their sense of satisfaction and esteem (Makkar & Yap, 2018; Kusumasondjaja, 2020). Hence, luxury consumption is mostly related to a symbolic sphere (Phau et al., 2022). Individuals with narcissistic tendencies display a heightened attraction towards the symbolic aspects of products, prioritizing them over their utilitarian benefits, in order to gain admiration from others (Lee et al., 2013; Fastoso et al., 2018). Narcissistic consumers consider themselves as high class, like the high-quality products they consume (Kang & Park, 2016). Thus, they prefer to wear classic and limited items. This healthy narcissism could be the reason *why* luxury customers prefer traditional, classic, iconic design aesthetic, instead of an unconventional design for luxury sustainable products. Through luxury fashion, customers catch the opportunity to sustain and elevate their self-positivity. The present study aims to investigate why luxury buyers could me more likely to purchase products made of innovative fibers. As we mentioned, luxury customers tend to be characterized by narcissistic traits (Fastoso et al., 2018). Studies indicate that individuals with narcissistic traits exhibit a reluctance to participate in environmentally responsible actions (Naderi & Strutton, 2014, 2015). Nevertheless, when eco-friendly products serve as a status symbol, such as luxurious items, individuals with elevated levels of narcissism may be more inclined to adopt environmentally friendly behaviors and tend to take a more deliberate approach to their purchasing decisions, opting for classic and exclusive items that hold symbolic value: they prioritize quality over quantity and are drawn to luxury goods that are understated and refined (Kim & Lee, 2015; Kang & Park, 2016).

Moreover, individuals with narcissistic traits are attracted to the exclusivity and scarcity of products which make them feel unique, signaling wealth and social superiority (Kim & Lee, 2015). The need for uniqueness can be defined as an inherent desire to differentiate oneself from others by means of obtaining, using, and disposing products (Tian et al., 2001; Wu & Lee, 2016).

When a product is scarce, it is less likely to be bought, which make consumers view it as more valuable and special (Tian et al., 2001; Steinhart et al., 2014). Gierl et al. (2008), suggest that a scarcity message triggers a desire to differentiate oneself from others by creating sense of superiority, which leads consumers to believe that only a select few can acquire the item.

Sustainable luxury products made of innovative fibers are produced and supplied by only a very limited number of designers. Therefore, luxury buyers, who seem to be characterized by narcissistic traits, could be strongly attracted by this kind of products for their scarcity and exclusiveness.

However, with the "democratization" of luxury, many brands have already adopted, or are currently pursuing, approaches aimed at expanding their reach and making their products more accessible, consequently reducing the perceived scarcity of their products. This strategy includes downward brand extensions, as well as vertical and horizontal diversification. As a result, companies have adopted masstige strategies to target the mass-market segment (Rosendo & Shukla, 2023). The study of Rosendo-Rios and Shukla (2023) demonstrated that luxury brands greater availability and accessibility, due to masstige strategy, negatively affect the perceived value of luxury buyers. Therefore, green product innovation has the potential to restore the balance of luxury brands and rediscover the uniqueness and exclusivity that has always characterized them.

Moreover, by maintaining scarcity value, luxury brands aim to satisfy luxury consumers' needs for distinctiveness and self-differentiation (Park et al., 2008; Rosendo & Shukla, 2023).

2.4.3 Environmental Concern

The environmental concern is defined as "the degree to which people are aware of environmental problems and support efforts to solve them and/or indicate a willingness to contribute personally to their solution" (Dunlap, & Jones, 2002). Datta (2011) defines pro-environmental concern as a broad attitude that represents the degree to which individuals feel anxious about environmental problems and their potential impacts. It is considered to be a social-altruistic value orientation, as people's underlying ecological concerns make them care more about the environment, which has an impact on other people's lives (Kamalanon, 2022). The concerns individuals hold regarding environmental issues can act as a significant predictor of their pro-environmental behaviors, including green buying behavior (Datta, 2011).

Many researchers have attested that consumers purchase behavior of green products is affected by their level of environmental concern. According to the research conducted by Datta (2011), it is believed that the environmental concern of consumers is a significant factor that influences their purchasing behavior of eco-friendly products. The empirical study on Indian consumers shows that a strong inclination towards environmental issues mutates in a positive impact on their green buying behavior.

Concern plays a significant role in driving green consumer behavior, and therefore, it should not be overlooked. It has been revealed that the strongest link in the process of influencing green consumer behavior occur through the path of "Concern - Beliefs – Intentions" (Pagiaslis & Krontali, 2014).

Empirical evidence show that the environmental concern plays a central role also in fashion consumption. More specifically, considering the significant environmental impact of the fashion industry, it has been demonstrated that the more consumers are conscious and concerned about the human health and environment protection, the higher their consumption of ethical fashion will be (Yoo, 2021).

However, it seems necessary to understand what contributes to the environmental concern in order to increase the green innovations acceptance and consumption. Several studies have investigated the relation between socio-demographic factors and differences in opinion about and attitudes towards the environment (Fransson & Gärling, 1999). It has been revealed, over the last several decades, that sociodemographic characteristics, such as education, age, gender, and income, affect the environmental concern (Gifford & Nilsson, 2014).

Education seems to be very determinant: in many countries, more educated individuals are more environmentally concerned (Peisker, 2023) since highly educated people tend to have more knowledge about environmental issues and tend to assimilate and analyze environmental information more quickly (Liu, 2014).

Age. Studies indicate that younger individuals tend to exhibit a greater level of environmental concern compared to their older counterparts (Gifford & Nilsson, 2014). Evidence is found on how Generation Z and Millennials consumers have shown increasing concern for the environment, demonstrated through their daily habits at home and in school (Mursid et al., 2021). They are also actively involved in the "Eco-Green" campaign, which promotes environmentally friendly behaviors and practices. Moreover, younger generations are more exposed to global information through different media which leads to an increase of environmental consciousness (Franzen & Vogl, 2013).

Gender. Women tend to exhibit more robust environmental attitudes, concern and behaviors compared to men (Datta, 2011). Most empirical studies have demonstrated that not only females report higher level of environmental concern, but also a higher level of place attachment than males (Dlamini et al., 2021).

Income. Among the socio-demographic factors, income may be the most significant predictor in consumer behavior studies. Environmental concern level varies among different income groups (Teoh & Gaur, 2019) since wealthier individuals have fewer financial problems to worry about and therefore are more likely to direct their attention towards other issues. (Franzen & Vogl, 2013). Hence, we may assume that also luxury customers, who generally dispose of a higher income, are more concerned about the planet. Moreover, people in richer countries, and those who are more affluent within a country, tend to be more interested in and willing to invest money to safeguard the natural environment (Fairbrother, 2013).

However, less is known about the consistency of these explanations across countries (Marquart-Pyatt, 2008) and therefore, there is a need for a better understanding of the global phenomenon since, while previous studies research has shown that environmental concern varies among countries, existing studies are typically country specific.

This study will investigate the level of environmental concern of an Italian sample aiming to understand its impact on the dissemination of these innovative sustainable fibers.

RESEARCH GAP AND HYPOTHESES TEST

3.1 Conceptual Model

Luxury brands have come to realize that consumers are increasingly concerned about the environmental and societal impact of their consumption choices, a factor that they previously neglected (Athwal et al., 2019). The integration of ethical considerations into their actions and decisions could improve luxury customers' self-image and sense of contentment, as they typically purchase goods for status and social prestige (Olorenshaw, 2011). Green innovations have been identified as crucial for environmental and economic success (Lee et Kim., 2011) (Takalo et al., 2021), with consumers favoring environmentally friendly production and companies that engage in green activities (D'angelo et al., 2022). Fibers show a tangible connection to some of the most pressing issues of our world such as climate change, waste generation, and water scarcity (Fletcher and Grose, 2012) (Muthu and Gardetti, 2016). The giant use of animal leather within the fashion industry (Thomas, 2007) causes several damages including the use of harmful chemicals and fossil fuels and have a limited end-of-life (Jones et al. 2020). Therefore, the use of alternative fibers has become widely spread.

However, several studies have demonstrated that luxury fashion buyers consider the use of recycled fibers as not compatible with luxury fashion and, view products made of recycled fibers as contaminated, with consequently decreasing purchase intention (Meng and Leary, 2021). Achobou et Dekhili (2013) revealed that luxury buyers do not appreciate the use of recycled fibers since they perceive a value reduction which is opposed to luxury's essence of high quality, rarity, and exclusivity.

Starting from this perspective, the current study focuses on the innovative sustainable fibers within luxury fashion. These new fibers are derived from sustainable, organic sources such as fruit pulp (Muthu and Gardetti, 2016), presenting the opportunity to tackle the ecologically harmful reliance on conventional fibers (Stenton et al., 2021).

In the proposed model, we juxtapose two circular business model: "the reuse" and "the recycling".

The first model emphasizes the promotion of reuse and the extension of a product's lifespan, while the second model prioritizes the recycling of unwanted materials for creation of new products. In both cases, the crucial factor of success is people's willingness to transform the system, and the ultimate goal is to optimize the value of a product at every stage of its lifecycle (Weber, 2019).

However, based on previous research and, on the analysis of luxury, we believe that the use of sustainable fibers, hence the reuse, could "fit" more the luxury world than recycled ones and, consequently, be more appreciated by consumers. Luxury fashion buyers seek high quality and exclusivity in luxury brands collections (Joy et al., 2012) (Vehmas et al., 2018) hence, we believe that there is a higher compatibility between luxury fashion and these alternative materials compared to the recycled ones.

This empirical study will utilize *wine leather* as innovative fiber since traditional leather is a key component in the production of luxury fashion items (Thomas, 2007). Therefore, it seems necessary to investigate consumer's behavior towards an alternative solution to traditional leather in order to address and eliminate this harmful practice. Moreover, as recycled fiber, the *recycled polyester* made from recycled plastic bottle will be used, since it is one of the most used fibers for free animal cruelty production. Finally, this research will investigate the difference of *willingness to buy* and *perceived quality* for both fibers.

H1a: The *willingness to buy* of consumers is higher for the luxury item made of wine leather than for the luxury item made of recycled fibers.

H1b: The *perceived quality* of consumers is higher for the luxury item made of wine leather than for the luxury item made of recycled fibers.

3. 2 The Moderating effect of Design

The integration of sustainable materials in luxury brand collection remains a challenge, despite the advantages of such innovation (Chai et al., 2022). To address this issue, the current study will emphasize the significance of *design aesthetics* in promoting and enhancing the adoption of alternative fibers in luxury fashion collections. The importance of design aesthetics in clothing consumption cannot be overstated (Eifler and Diekamp, 2013, as it serves as the priquarty basis for consumers' initial perception of a product (Creusen and Schoormans, 2005). The design of a product can effectively convey its benefits, with consumers perceiving long-lasting and timeless designs as indicative of luxury and high value Kapferer and Bastien, 2017). Hence, in order to overcome the barriers to consumption of sustainable fashion, the real innovation should be connected to the use of new fabrics, new techniques, like innovative fibers, rather than to the mutation of design aesthetic (Finn, 2011) which should remain unaltered. Several studies confirm that when the new green product design resembles the previous, classic models of the brand, customers' brand attitude and purchase intention, towards green products, increase (De Angelis et al., 2017). On the other side, when green fashion is combined with alternative design, far from the typical brand's aesthetic, consumers tend to see it as a stigma (Harris et al., 2016). Therefore, the reason why apparel made of recycled materials is not completely accepted by luxury customers could be related to the non-resembling design aesthetic. To facilitate the mainstream adoption of sustainable clothing, it is imperative to normalize its design (Harris et al., 2016). This strategy can help to overcome the existing barriers that hinder its widespread uptake and integration into the fashion industry. Therefore, the present study will investigate the role of design aesthetic in green product innovation's acceptance.

H2a: The design (W) moderates the relation between the presence of innovative fiber wine leather and the willingness to buy. More specifically, when a fashion item made of wine leather resembles the traditional design aesthetic of the brand, consumers' WTB further increases.

H2b: The design (W) moderates the relation between the presence of innovative fiber wine leather and the perceived quality. More specifically, when a fashion item made of wine leather resembles the traditional design aesthetic of the brand, consumers' WTB further increases.

3.3 The Mediating role of Narcissism

By consuming luxury brands, consumers signal their affiliation with a particular social class, which can contribute to their sense of satisfaction and esteem (Makkar and Yap, 2018; Kusumasondjaja, 2020), showing a strong attraction towards the symbolic benefits, prioritizing them over their utilitarian ones (Phau et al., 2022).

The present study aims to investigate *why* consumers could me more likely to purchase luxury products made of innovative fibers. To do so, typical personality traits of luxury customers have been analyzed, finding out from several studies that they are characterized by narcissistic traits (Fastoso et al., 2018). Narcissistic consumers consider themselves as high class, like the high-quality products they consume (Kang & Park, 2016) and thus, they prefer to wear classic, iconic and limited items (Kim and Lee, 2015; Kang and Park, 2016).

Therefore, if sustainable luxury products made of innovative fibers incorporate the traditional and iconic design of the brand, they could be more readily accepted by consumers as it nurtures the narcissistic traits associated with the search for status and esteem.

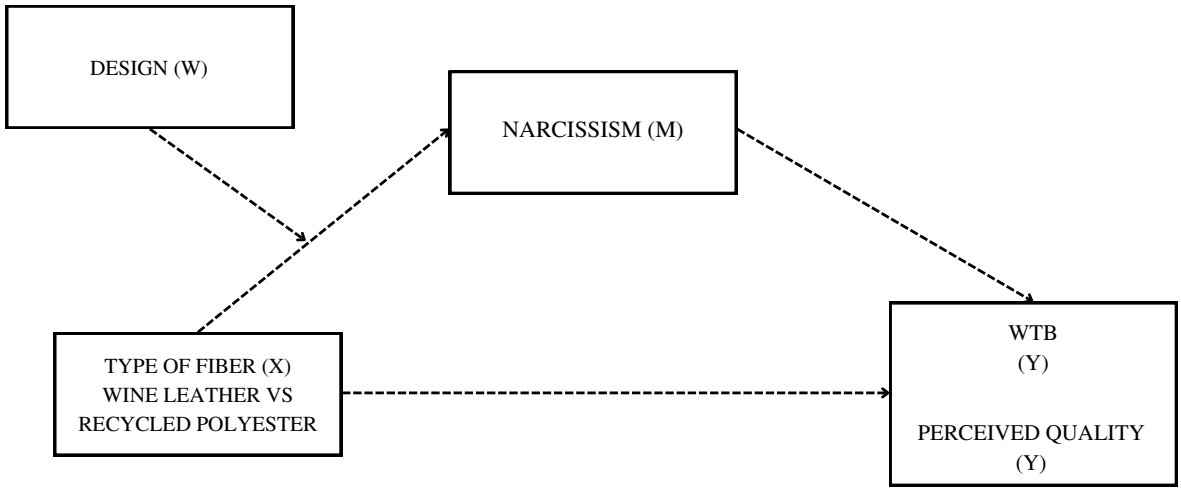
From a second perspective, luxury products made of innovative fibers are still uncommon and rarely produced by luxury brands, thus considered limited and scarce. Individuals with narcissistic traits are attracted to the exclusivity and scarcity of products which make them feel unique (Kim & Lee, 2015). The term "need for uniqueness", which refers to an innate inclination to distinguish oneself from others through the acquisition goods (Tian et al., 2001; Wu & Lee, 2016), can be fulfilled by a limited and scarce product. When a product is scarce, it is less likely to be bought, which make consumers view it as more valuable and special (Tian et al., 2001; Steinhart et al., 2014). Emphasizing the limited availability of a product elicits a motivation in individuals to distinguish themselves from others by cultivating a feeling of superiority (Gierl et al. 2008).

However, many companies are attempting to widen their market by making their products more accessible (Shukla et al., 2022). This approach entails reducing the perceived scarcity of their products and, a recent study by Rosendo-Rios and Shukla (2023) revealed that luxury brands that employ masstige strategies, to increase

accessibility and availability, may have negative effects on the perceived value of buyers. Therefore, green product innovations have the potential to restore the balance of luxury brands and rediscover the uniqueness and exclusivity that has always characterized them. Innovative and sustainable fibers, such as wine leather, are considered scarce and limited as only a small number of designers use them in their collections. Consequently, consumers with narcissistic traits may prefer these products for their exclusivity and scarcity, which make them feel unique and special. The level of narcissism could be influenced by the type of fiber.

H3a: The design (W) influences the *indirect effect* between the type of fiber (X) and the WTB (Y) mediated by the narcissism (M).

H3b: The design (W) influences the *indirect effect* between the type of fiber (X) and the perceived quality (Y) mediated by the narcissism (M).



3.4 Methodology

This experimental study employs conclusive research, specifically a 2x2 between-subjects design. A survey, created on Qualtrics, has been delivered through a convenience method, to an Italian sample in May 2023. The questionnaire was disseminated using an anonymous link shared by different social media like Whatsapp, Instagram, Facebook. Moreover, the experiment included individuals of different age and gender.

More specifically, the survey has been delivered to 238 individuals but, only 186 where valid answers since the rest did not complete the study. The sample was composed by 120 females, 65 males and 1 non-binary with a median age of approximately 26.

The survey was composed by 19 questions (15 technical and 4 demographics).
In the first part of the survey, the sample assisted to a small introduction to the research and a clear information about the next steps.

"Ciao, mi chiamo Sharon Guido e sono una studentessa di Marketing del corso Analytics And Metrics dell'università LUISS Guido Carli. Sto conducendo uno studio a fini puramente accademici, utili alla stesura della mia Tesi di laurea. Il tema centrale dello studio è l'innovazione "green" nel mondo della moda di lusso. Tutte le risposte fornite saranno completamente anonime, quindi per favore rispondi più apertamente e sinceramente possibile, non esistono risposte sbagliate! Ti ringrazio per il tuo tempo e per la tua preziosa pertecipazione al progetto!"

"A breve dovrai leggere una piccola descrizione. Ti chiedo di leggerla attentamente, dopodiché ti sarà chiesto di rispondere a delle domande."

In the second part of the questionnaire, the sample was presented with manipulated and randomized scenarios. Specifically, the four conditions included the presence of two different sustainable fibers (wine leather derived from grape and recycled polyester derived from plastic bottle) and a design that was either similar or different to the brand's previous items.
The four conditions were textually represented:

1. Il marchio di lusso anonimo ha annunciato il prossimo lancio di una nuova linea di **borsoni da viaggio** completamente eco-sostenibile, realizzata utilizzando una **fibra innovativa ottenuta dalla lavorazione dei residui dell'uva**, nota come **PELLE DI VINO**. A tal proposito l'azienda ha deciso di lanciare questa linea adottando un **design del tutto simile** rispetto a quello generalmente utilizzato per i suoi borsoni tradizionali, cambiando pertanto solo il materiale utilizzato.
2. Il marchio di lusso anonimo ha annunciato il prossimo lancio di una nuova linea di **borsoni da viaggio** completamente eco sostenibile realizzata utilizzando una **fibra innovativa ottenuta dalla lavorazione dei residui dell'uva**, nota come **PELLE DI VINO**. A tal proposito l'azienda ha deciso di lanciare questa linea adottando un **design del tutto diverso** rispetto a quello generalmente utilizzato per i suoi borsoni tradizionali, cambiando pertanto sia il materiale che il design utilizzato.
3. Il marchio di lusso anonimo ha annunciato il prossimo lancio di una nuova linea di **borsoni da viaggio** completamente eco sostenibile realizzata utilizzando una **fibra innovativa ottenuta dalla lavorazione di bottiglie di plastica riciclate**, nota come **POLIESTERE RICICLATO**. A tal proposito l'azienda ha deciso di lanciare questa linea adottando un **design del tutto diverso** rispetto a quello generalmente utilizzato per i suoi borsoni tradizionali, cambiando pertanto sia il materiale che il design utilizzato.
4. Il marchio di lusso anonimo ha annunciato il prossimo lancio di una nuova linea di **borsoni da viaggio** completamente eco sostenibile realizzata utilizzando una **fibra innovativa ottenuta dalla lavorazione di bottiglie di plastica riciclate**, nota come **POLIESTERE RICICLATO**. A tal proposito l'azienda ha deciso di lanciare questa linea adottando un **design del tutto simile** rispetto a quello generalmente utilizzato per i suoi borsoni tradizionali, cambiando pertanto solo il materiale utilizzato.

After the sample read the manipulated scenario, after 15 seconds, they could start answering the questions. The following questions measured the willingness to buy (WTB) of the individuals, the perceived quality (PQ), the disgust index, the perceived fit, narcissism, need for uniqueness (NFU), environmental concern (EC), attitude towards the product (ATP). All these variables were measured by pre-validated scales (Sweeney & Soutar, 2001; Bruner, I., & Handbook, 2009; Tabbane & Hamouda, 2013; Argo & Morales, 2006; Brown & Zeigler-Hill, 2004; Workman & Kidd, 2000; Simmons & Becker-Olsen, 2006; Johnson & Russo, 1984; Roberts & Bacon, 1997) and, for all the questions a 7 points Likert scale was used.

A third part of the study was a pretest ideated to verify whether the scenarios were perceived correctly. More specifically, if the fiber, the design and the luxury brand were correctly represented by the texts.

This manipulation check was composed by 4 questions related to the perceived fiber, perceived design, perceived luxury, and perceived innovativeness. Each of them was constituted by one single question represented with a bipolar differential scale. Consequently, the survey included control variables such as material familiarity (wine leather and recycled polyester), consumption frequency and environmental concern. Finally, the last section of the survey contained questions regarding sociodemographic information, including gender, and occupation. To conclude, participants were asked to guess the identity of the "anonymous" brand mentioned in the randomized scenarios.

3.5 Main study

After collecting all the necessary responses, the data was exported from Qualtrics in order to be further analyzed in SPSS. Firstly, the dataset was cleaned of all the incomplete responses, and subsequently, the coding of dichotomous variables was performed. Specifically, a variable was created to represent the two conditions of wine leather versus recycled polyester. Then, a second dichotomous variable (0, 1) was created to indicate the presence of a design that was either similar or different from the brand's previous models. These two variables will be used as the X (IV) and W (moderator) in the study. Moreover, all the measured variables were collected in summary variables to allow the execution of tests.

3.6 Manipulation Check

To validate the stimuli used in the study, a manipulation check was conducted to test wheatear the textual scenarios were perceived correctly by the individuals. The first manipulated variables tested was the perceived fiber, specifically asking the sample to which extent the fiber described in the scenario was grape residue or recycled plastic residue. Subsequently, participants were asked to which extent the design described in the scenario was perceived as similar or different from the brand's previous products. Then, they were asked to

which extent the brand was a luxury or mass market one. Finally, participants were asked how much the fiber was considered innovative.

A reliability test was not necessary as each scale of the manipulation check consisted of a single item.

Afterwards, four independent sample t-test were conducted to examine whether there was a significant difference in the means of the groups for all manipulation checks.

As for the first manipulation check, an independent sample t-test was conducted, showing that the individuals exposed to the condition 0 (recycled polyester) registered a mean equal to 6.378, while the individuals exposed to the condition 1 (wine leather) registered a mean equal to 2.115. This difference can be considered as statistically significant as the p value was < 0.001.

IV= Fiber (0; 1)	Perceived Fiber Mean	N	Sig. (T-test)
0 = recycled polyester	6.378	98	p-value < 0.001
1 = wine leather	2.115	87	

The same test has been run for design manipulation check. In the same way, the subjects who were exposed to a similar design (1) registered a mean equal to 3.582 while, the individuals exposed to a different design (0) registered a mean equal to 5.617. This difference resulted statistically significant as the p value is < 0.001.

IV= Design (0; 1)	Perceived Design Mean	N	Sig. (T-test)
0 = Different Design	5.617.	94	p-value < 0.001
1 = Similar Design	3.582	91	

As for the perceived innovativeness, the test has demonstrated how, for the sample, the wine leather is more innovative than the recycled polyester. The perceived innovativeness of the two different fibers is respectively of 6.29 and 5.44, this difference is statistically significant as the p-value was < 0.001. Hence, the individuals perceived the wine leather as more innovative than the recycled polyester.

IV= Fiber (0; 1)	Perceived Innovativeness Mean	N	Sig. (T-test)
0 = Recycled Polyester	5.44	98	p-value < 0.001
1 = Wine Leather	6.29	87	

The last manipulation check concerned the perceived luxury. More specifically, it was necessary to check if the luxury brand was correctly perceived. The brand presented in all the four conditions was a luxury brand. Consequently, we expected no difference in the respondents' answers to the question "is the previously described brand a mass or luxury brand?". As anticipated, the brand was perceived as luxury by the sample, and therefore there is no significant difference in the means (p-value > 0.025).

IV= Fiber (0; 1)	Perceived Luxury	N	Sig. (T-test)
0 = Recycled Polyester	1.71	98	p-value = 0,697
1 = Wine Leather	1.80	87	

3.7 Hypotheses Test

As a reminder, the hypotheses of the conceptual model are reported:

H1a: The *willingness to buy* of consumers is higher for the luxury item made of wine leather than for the luxury item made of recycled fibers.

In order to test H1, the first step consisted in the reliability test of the WTB scale which showed a Cronbach alfa = 0.867 which means that the scale is strongly reliable.

The second step consisted in the ideation of a summary variable "WTB_Mean" which will be useful for the hypothesis test.

Cronbach Alfa	N
0.865	3

More specifically, an independent sample t-test was conducted using as IV the Fiber (0,1) being a dichotomous variable and WTB as dependent variable (Y) being a measured one.

The results showed that the WTB mean of the subjects who saw the scenario containing the wine leather (1) is significantly higher than the WTB mean of the individuals who read about the recycled polyester (0).

The condition required by the Levene test is not met since p-value < 0.05, we reject H0: the variances of the groups are not homogeneous. However, the t-test shows that the difference of means is statistically significant as the p-value is < 0.05.

IV= Type of Fiber	WTB Mean	N	Sig. (T-test)
0 = Recycled polyester	4.771	99	P-value = 0.03
1 = Wine Leather	5.146	87	

Thus, the main effect is considered statistically significant, therefore confirming H1. The presence of the wine leather *increases* consumers' WTB.

H1b: The *perceived quality* of consumers is higher for the luxury item made of wine leather than for the luxury item made of recycled fibers.

The same test has been executed with a different dependent variable, PQ. Also, for the PQ scale a reliability test was conducted which showed Cronbach alfa of 0.933 which confirmed a perfect reliability of the scale.

Cronbach Alfa	N
0.933	5

In this case as well, a t-test was conducted to determine if the average PQ of the sample was higher in the presence of grape waste fiber compared to recycled plastic bottle waste fiber. The test confirms hypothesis H1b, demonstrating a higher average PQ in presence of the innovative fiber wine leather.

IV= Type of Fiber	PQ Mean	N	Sig. (T-test)
0 = Recycled polyester	4.600	99	P-value < 0.001
1 = Wine Leather	5.212	87	

H2a: The design moderates the relation between the presence of innovative fiber and WTB. More specifically, when a fashion item made of wine leather resembles the traditional design aesthetic of the brand, consumers' WTB.

In order to test the *moderation* effect, the first step to conduct is to verify the effect between the Design (W) and the dependent variable WTB. This cause-effect relation is statistically significant since in presence of a similar design the WTB mean becomes higher than in presence of a different design from the previous models of the brand.

IV= Design	WTB mean	N	Sig. (T-test)
0 = Different Design	4.649	95	P-value = 0.001
1 = Similar Design	5.256	91	

To test the moderation effect between the type of fiber and the design, a *two-way* ANOVA has been conducted. The analysis revealed that the model fit is acceptable since p-value = 0.002 and, the *main effect* between fiber and WTB is statistically significant, indicating that the presence of wine leather increases consumer WTB. Additionally, the *second effect* between design and WTB aligns with H2, as the average WTB in presence of

a similar design is higher compared to the WTB mean in presence of recycled polyester. However, the *interaction effect* between FIBER*DESIGN was not statistically significant since the p-value > 0.05. Therefore, based on the results obtained it was not possible to confirm H2, which means that the moderation effect between the type of fiber (IV) and the type of design (W) cannot be confirmed.

IV	W	WTB MEAN	N
0 = Recycled Polyester	0= Different Design	4.327	50
	1= Similar Design	5.225	49
1 = Wine Leather	0= Different Design	5.007	45
	1= Similar Design	5.294	42

	F	Sig. (F-test)
Model fit	5.240	0.002
Main effect IV	3.623	0.05
W= second direct effect	9.033	0.003
IV*W= moderation effect	2.410	0.122

H2b: The design moderates the relation between the presence of innovative fiber and perceived quality. More specifically, when a fashion item made of wine leather resembles the traditional design aesthetic of the brand, consumers' perceived quality.

The same analysis has been conducted considering the perceived quality as dependent variable.

The results show a statistically significant main effect between the type of fiber and the perceived quality, more specifically in presence of wine leather the PQ is higher than in presence of the recycled polyester. As for the design, there is a higher PQ mean in presence of wine leather however, this difference is not statistically significant since p-value = 0.085. Moreover, the interaction effect is not statistically significant since the p-value = 0.615.

IV	W	PQ MEAN	N
0 = Recycled Polyester	0= Different Design	4.3960	50
	1= Similar Design	4.8082	49
1 = Wine Leather	0= Different Design	5.1022	45

	1= Similar Design	5.3286	42

	F	Sig. (F-test)
Model fit	4.793	0.003
Main effect IV	11.059	0.001
W= second direct effect	2.997	0.085
IV*W= moderation effect	0.254	0.615

Subsequently the third hypothesis has been tested.

H3: Narcissistic traits (M) of consumers are positively influenced by the interaction between the wine leather (IV) and the similar design of the product (W).

To test the relation between the type of fiber, the design, the narcissism and the WTB (H3) a model 7 on Process has been executed. This moderated mediation is aimed to examine whether the effects of fiber type on WTB were indirectly influenced by narcissism traits and whether the interaction between the design and fiber type had an impact on the results.

The results do not confirm the third hypothesis stated. More specifically, the first relation between the type of fiber (IV) and the narcissism (M) is not statistically significant since the p-value = 0.133.

Outcome Variable Narcissism

	Coefficient	P-value	LLCI	UCLI
Constant	-0.141	0.278	-0.397	0.115
Type of Fiber	0.301	0.133	-0.093	0.696

When the outcome variable is WTB, the relation with the type of fiber is not statistically significant.

However, we can assist to a significant and influence of narcissism with a p-value = 0.000 and a bootstrapping LLC=0.266 UCL=0.568 which means that a certain level of narcissism positively influences WTB of consumers.

Outcome Variable WTB

	Coefficient	P-value	LLCI	UCLI
Constant	4.642	0.000	4.310	4.974
Type of Fiber	0.264	0.152	-0.098	0.625

Narcissism	0.515	0.000	0.292	0.737
Design	0.425	0.025	0.055	0.795
Int_1	-0.235	0.143	-0.549	0.080

As for the design, we have been able to state that the type of design (W) does not statistically influence the narcissism (M). Moreover, the *interaction effect* is not confirmed. To conclude, there is no indirect effect of X on Y which means that the H3 is not confirmed.

H3b: The design (W) influences the *indirect effect* between the type of fiber (X) and the perceived quality (Y) mediated by the narcissism (M).

The same analysis was conducted considering PQ as dependent variable. A model 7 on Process was executed. First, the results show no significant relation among the IV, W and M.

Outcome Variable Narcissism

	Coefficient	P-value	LLCI	UCLI
Constant	3.6150	0.0000	3.2418	3.9882
Type of Fiber	0.2683	0.3302	-0.2740	0.8106
Design	0.4360	0.1066	-0.0945	0.9665
Int_1	0.075	0.8401	-0.6965	0.8554

Moreover, when the outcome variable is PQ, there is statistically significant impact of the type of fiber (IV) and narcissism (M) on PQ (Y).

Outcome Variable PQ

	Coefficient	P-value	LLCI	UCLI
Constant	3.1454	0.0000	2.6178	3.6729
Type of Fiber	0.4971	0.0040	0.1606	0.835
Narcissism	0.3797	0.0000	0.2556	0.5038

The results do not confirm the hypothesis stated since, the index of moderated mediation reports the confidence interval which contains the 0.

3.8 Covariates

Environmental concern, frequency of consumption and the disgust index were chosen as control variables. The inclusion of covariates in the moderated mediation analysis could be useful to understand if there are additional factors that may have influenced the results, leading to a more accurate estimation of the effects.

In order to understand the lack of significance of the moderated mediation (H3) to the model were added the covariates *disgust index, environmental concern* and *frequency of consumption.*

Firstly, a model 7 on Process was conducted including these latter variables as covariates.

As for the EC, results show a p-value of 0.9193, demonstrating that the EC does not influence the consumers' narcissism.

From the results it is possible to confirm a positive impact of *frequency of consumption* of luxury fashion items on the narcissism. More specifically, a higher frequency of consumption of luxury items leads to a higher level of narcissism.

Moreover, results also indicate that a high level of disgust negatively impact narcissism traits of consumers.

	Coefficient	P-value	LLCI	ULCI
Disgust	-0.2152	0.0367	-0.4169	-0.0135
F. Consumption	0.1657	0.0000	0.0890	0.2423

A possible interpretation related to the failure of the model 7, could be connected to the disgust and frequency of consumption of consumers. It suggests that the predictor variable (fiber) and the mediator variable (narcissism) may not have a significant direct effect on the outcome variable (WTB) when controlling for the covariates (disgust and frequency of consumption). In this case, the inclusion of disgust and frequency of consumption in the model may help explain the lack of significance in the main model. These covariates have a significant influence on the outcome variable.

It could be argued that a sample comprised entirely of luxury buyers could have contributed to the significance of the model. If the sample consisted exclusively of luxury buyers, there could have been a possible decrease in variability in the dependent variable WTB as well as the predictor (fiber) and mediator (narcissism) variables within the sample. This reduction in variability could have enhanced the likelihood of identifying significant effects within the model.

In other words, if the sample exclusively consisted in luxury buyers, there might be a greater level of consistency in preferences and purchasing behavior within the group. This, in turn, could have led to a stronger relation between the type of fiber, the narcissism and the WTB.

3.9 Additional Analysis

The aim of these additional analysis is to find possible interesting relations among the variables contained in the research study. More specifically the survey contained questions about the level of *perceived fit* between the type of fiber and the luxury brand mentioned in the scenario. Then, other additional variables were the *need for uniqueness*, the *disgust index* and the *perceived quality*.

The first analysis made considers a simple cause-effect relation between the design and the narcissism with the aim to understand if the similar design of luxury items to the previous model of the brand can positively affect the narcissistic traits of consumers.

An independent sample t-test was performed using the Design as dichotomous variable (0;1) and the narcissism as dependent variable (Y). The results show that there is statistically significant impact of design on narcissism which means that in presence of a similar design, the consumer will feed their narcissism.

	Narcissism Mean	Sig. (P-value)
Different Design = 0	3.7421	
Similar Design = 1	4.2115	0.009

The second interesting analysis made, concerns the variable perceived quality which has been investigated as mediator between the relation of the type of fiber (IV) and the WTB (Y).

In order to test these relations, the model 4 on Process has been executed. Results show that there is a statistically significant relation between the type of fiber (IV) and the mediator perceived quality with a p-value= 0.001.

Outcome Variable= Perceived Quality

	Coefficient	P-value	LLCI	UCLI
Constant	4.600	0.000	4.310	4.890
IV=Fiber	0.611	0.001	0.255	0.968

Analyzing the second effect, the results show that the influence between the type of fiber (IV) and WTB is not statistically significant. However, the perceived quality (M) has impact on the WTB (Y).

Outcome Variable=WTB

	Coefficient	P-value	LLCI	UCLI
Constant	0.484	0.017	0.088	0.880
IV=Fiber	-0.195	0.067	-0.404	0.014

M=Perceived Quality	0.932	0.000	0.856	1.007

To conclude, an *indirect effect* is demonstrated. This means that the relation between the type of fiber and the WTB is *indirectly* explained by *perceived quality.*

Indirect Effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootUCLI
Perceived Quality	0.570	0.176	0.236	0.923

The third additional analysis considers the variable *narcissism (M)* as mediator between the type of fiber (IV) and the perceived quality. More specifically, the aim of this analysis is to understand if the narcissism (M) of consumers explains why the type of fiber (IV) positively affect the perceived quality (Y). The results show a *total* and direct effect of X on Y which means that the narcissistic traits of consumers do not mediate the relation and, the type of fiber directly and totally impact on the perceived quality of consumers without the intervention of narcissism.

Total effect of X on Y

Effect	P-value	LLCI	ULCI
0.6115	0.0011	0.2464	0.9766

Direct effect of X on Y

Effect	P-value	LLCI	ULCI
0.4971	0.0040	0.1606	0.8335

A last analysis has been made considering the *perceived fit* variable. A mediation model has been executed considering as IV the type of fiber and the WTB as dependent variable. The coefficient for the IV is -0.2027 with a p-value of 0.2569. This suggests that there is no significant association between the type of fiber and WTB. However, the mediator variable Fit has a coefficient of 0.5292 with a p-value of 0.000, indicating a significant association between the perceived fit and WTB mean.

Outcome Variable WTB

	Coefficient	P-value	LLCI	UCLI
Constant	2.8558	0.0000	2.3884	3.3231

Type of Fiber	-0.2027	0.2569	-0.5544	0.1490
Fit	0.5292	0.0000	0.4170	0.6415

The total effect of the fiber on WTB is not statistically significant. It suggests that the overall relationship between the fiber and WTB is not significant when considering all factors in the model.

The direct effect of X on Y is not statistically significant, which means that the direct relationship between the fiber and the WTB, without considering the mediator Fit, is not significant.

To conclude, the *indirect effect* of the type of fiber (X) on WTB (Y), through the mediator fit is statistically significant (p-value < 0.0001). This suggests that the relation between the type of fiber and WTB is mediated by consumers' perceived fit.

Indirect Effect(s) of X on Y

Effect	BootSE	BootLLCI	BootULCI
0.5660	0.1403	0.3136	0.8727

CONCLUSIONS

4.1 Academic Implications

The current studies have relatively investigated the role of sustainability in the luxury fashion industry. The compatibility of luxury and sustainability has been widely debated as two elements in conflict for certain aspects but in great harmony in others.

In recent years, there has been a noticeable shift in the luxury industry towards what is known as "the new luxury" (Gardetti, 2020). This concept refers to the emergence of more affordable and widely available luxury goods and services that target mass consumer segments (Shukla et al., 2022). The strategies adopted by these new brands prioritized mass production, maximizing profits, and achieving quick returns on investments (Gardetti, 2020). Consequently, the notion of luxury has become more accessible and less exclusive, with a reduced emphasis on self-differentiation and uniqueness. At the same time luxury brands have increased the frequency of their collections, transitioning from producing two collections per year to as many as eight, in order to compete with fast fashion companies (Gazzola et al., 2020). Luxury fashion companies have faced criticism for their detrimental effects on biodiversity and their contribution to waste and pollution throughout their manufacturing processes. As a result, luxury brands have become increasingly aware of the significance of environmental and societal impact when it comes to consumers' consumption choices and, they can no longer ignore this aspect, as they may have done in the past.

One of the most pressing concerns is the use of refined fibers, since the most iconic and popular items offered by luxury brands are typically made from leather and animal hair whose production involves animal cruelty and a series of harmful physical and chemical treatments. Consequently, the focus of the study centers around exploring sustainable and innovative fibers derived from renewable resources, such as food waste.

More specifically, the experimental design considers the *type of fiber* as an independent variable, comparing the innovative grape-derived fiber (wine leather) with another sustainable fiber derived from recycled plastic bottles (recycled polyester). The aim is to understand whether consumers' WTB and PQ increase in presence of wine leather compared to the recycled fiber. This hypothesis is supported by existing literature, which suggests that luxury buyers have an aversion to the recycling technique since they perceive it as a "downgrading" for the value of luxury items (Achobou et Dekhili, 2013). This principal cause-effect hypothesis was confirmed through the analyses with an independent sample t-test which demonstrated that in presence of grape-derived fiber there is a higher WTB, and a greater perception of quality compared to the recycled fiber.

The second hypothesis relates to the *design* of luxury products since it plays a fundamental and indispensable role in luxury fashion as it represents the brand's identity and heritage. Therefore, this study considers its moderating role: in the presence of a product made of *wine leather* and with a *similar design* to the brand's previous luxury products, the WTB and PQ should be, on average, higher compared to the other scenarios.

The study aimed to examine the moderating role of design in the cause-effect relation between the type of fiber and the WTB. However, the results did not confirm this second hypothesis, as the *interaction effect* between the type of fiber (IV) and the design (W) was not statistically significant. Nevertheless, it can be noted that both *main effects* were confirmed. A similar design (W) significantly increases consumers' average WTB (Y).

The third hypothesis considered another variable: the *narcissism.* More specifically this hypothesis consisted in testing the possible interaction effect of the design (W) and the type of fiber (IV) on the mediator variable narcissism (M). This hypothesis is supported by previous studies which report how luxury consumers are characterized by narcissistic traits (Fastoso et al., 2018) which tare nourished by the aesthetic and scarcity of luxury items (Kim & Lee, 2015): when a product is scarce, it is less likely to be bought, which make consumers view it as more valuable and special (Tian et al., 2001; Steinhart et al., 2014). More specifically, this research identifies in the importance of the aesthetic, the design, and in the scarcity, the type of fiber (wine leather) since they are supplied by only a few designers. However, despite the support of previous research leading to such assumptions, the hypothesis is not confirmed.

To gain a better understanding of the failure of this model, two control variables were added: the *disgust index* and the *consumption frequency*. The purpose was to investigate whether disgust towards the innovative wine leather fiber could have a negative influence on consumer responses. The analysis indeed confirmed this suspicion, revealing a negative impact of the disgust index on consumers' narcissistic traits. The higher the disgust towards the fiber is, the lower the narcissism becomes.

The same procedure was applied considering consumption frequency. The suspicion in this case was related to the sample, as luxury buyers are the ones characterized by narcissistic traits. Thus, with a sample consisting of generic consumers with a low frequency of luxury product consumption, a clear reduction in narcissism can be expected. In light of these findings, a sample composed entirely of luxury buyers could have significantly altered the outcomes of this study.

Finally, additional analyses were conducted to explore potential relations that could provide interesting and innovative contributions to the existing research.

The first additional analysis was conducted considering the variable PQ as a mediating variable. The results showed that the relation between the type of fiber and consumers' WTB is mediated by the perceived quality. To increase the WTB of products made of sustainable innovative fibers, it is necessary for the perceived quality of these products to be high.

The second analysis considers the variable narcissism as mediator in the relationship between the type of fiber and perceived quality. This model revealed a direct and total effect of X on Y, indicating that the type of fiber directly and totally impacts consumers' PQ without the intervention of the narcissism.

The last additional analysis considers the variable *perceived fit* as a mediator, revealing interesting results. More specifically, a perception of fit between the fiber and the brand, increases consumers' WTB. Moreover, the main relationship between the type of fiber (IV) and WTB (Y) is mediated by the perceived fit (M). These

results confirm previous research conducted on luxury buyers who seemed averse to the use of recycled fibers (Achobou et Dekhili, 2013) since perceived as *incongruent* and *inconsistent* with the concept of luxury. This finding strongly justifies and reinforces these assertions.

To conclude, it is hoped that these contributions will enrich and provide theoretical insights to the field of study.

4.2 Managerial Implications

In the current fashion landscape, the topic of sustainability is becoming increasingly central and indispensable. Consumers are showing more attention and interest in green innovations that can reduce environmental impact. The difference in today's industry, is being made by the emerging brands that are born with an intrinsic idea of sustainability such as Veja, Ninety percent, Mara Hoffman, and the unmistakable Stella McCartney, capturing the attention of Millennials and Gen Z. In this competitive context, where the green theme is inevitable and sought after by young consumers themselves, the pursuit of green transformation appears to be necessary for heritage, established brands as well, without betraying the values of iconicity, exclusivity, and quality that have always distinguished them.

For this reason, this study contributes to understand how these established luxury brands could embrace an eco-friendlier approach without changing their identity. More specifically, the use of innovative materials can make a significant difference, as the use of precious fibers, typical of their collections, is leading to biodiversity loss. The goal of this research was to investigate consumers' perceptions towards these innovative fibers, with the aim of demonstrating that in the luxury business, sustainable innovative fibers like *wine leather* can be preferred and can increase the willingness to buy of consumers, compared to the other recycled fibers derived from other recycled materials such as plastic which is considered too distant and incompatible with the world of luxury.

The study revealed that the type of fiber used by a luxury brand can indeed make a difference, and that such an innovative and different fiber, triggers a higher willingness to buy compared to the recycled polyester. This increased WTB *is explained* by the perception of compatibility (fit) between the fiber and the luxury brand, as this fiber is considered rare, scarce, and exclusive, just like the well-known reputation of luxury items.

This could be an important contribution for classic, heritage, brands such as Hermès, Chanel, and Dior, as they are renowned for their history, uniqueness, and exclusivity. For this category of brands, a viable solution might be to start using these innovative materials in their collections. This suggestion may initially seem paradoxical, but in the pursuit of a green change, a luxury brand must still maintain its uniqueness and rarity and the use of these fibers could be a valuable tool to be both green and timeless.

Furthermore, the study highlighted the importance of luxury product design. Design has always been a symbolic element that allows consumers to be recognized as luxury buyers, thereby gaining status. The analysis revealed the impact of design on WTB, but more importantly on consumers' narcissism.

This result suggests that luxury brand aiming to embark on a path of eco-sustainability can leverage these precious elements. Maintaining their iconic style and unique design, in line with the previous collections, can work in favor of green product consumption. If consumers perceive the brand's identity, the history of the brand in the product, even if it is green, it will be appreciated, and probability purchased.

The explanation lies in the role of design, that has the power to *nourish* the typical sense of narcissism and aspiration of luxury buyers.

Lastly, this study can contribute to another important suggestion related to the perceived quality. More specifically, the more luxury brands will work to debunk the concept by which quality is linked to materials such as particular skin and fine fibers (i.e., crocodile leather by Hermès brand), the more it will be possible to increase the willingness to buy products created from alternative renewable fibers. In light of these findings, luxury brands could have the power to effectively change the rules and make a difference in terms of eco-sustainability, since they enjoy the advantage of being *symbols* more than function. This advantage can be leveraged in favor of the environment and the limited resources around it.

4.3 Future Research Gap

This study certainly has several limitations that have influenced its outcome. The first limitation pertains to the sample of participants in the survey, characterized by the absence of a specific age range and represented only by the Italian population. Future investigations could execute the present study considering specifically Millennials and Generation Z and, also different countries.

Moreover, as demonstrated by the covariates included in the models, conducting this with a sample exclusively composed of luxury buyers could have yielded more satisfactory and precise results in line with the intended purpose. Therefore, it is recommended to further explore this research on a sample of luxury consumers.

The second limitation could be related to the stimuli employed. To represent a variable like the design, a visual contribution might have been necessary rather than relying solely on textual information. The lack of support for the interaction effect between the type of fiber and the design (H2) could potentially be attributed to the absence of an actual, real perception of "design" among consumers when using textual content, which undoubtedly possesses inherent communicative limitations.

Another limitation pertains to the method used for data collection, namely the survey administered to participants. In the future, qualitative research could be conducted using in-depth interviews to gather targeted

individual perceptions, or through focus groups to collect insights stemming from group interactions. These alternative approaches would allow for a more nuanced understanding of the subject matter.

Moreover, it will be interesting to verify these hypotheses on a cross-country study, as it would allow researchers to understand how cultural differences influence the acceptance of such innovative fibers used in luxury fashion. Ideally, contrasting two culturally distant countries and testing whether such distance also influences the perception of these innovative fibers would provide valuable insights.

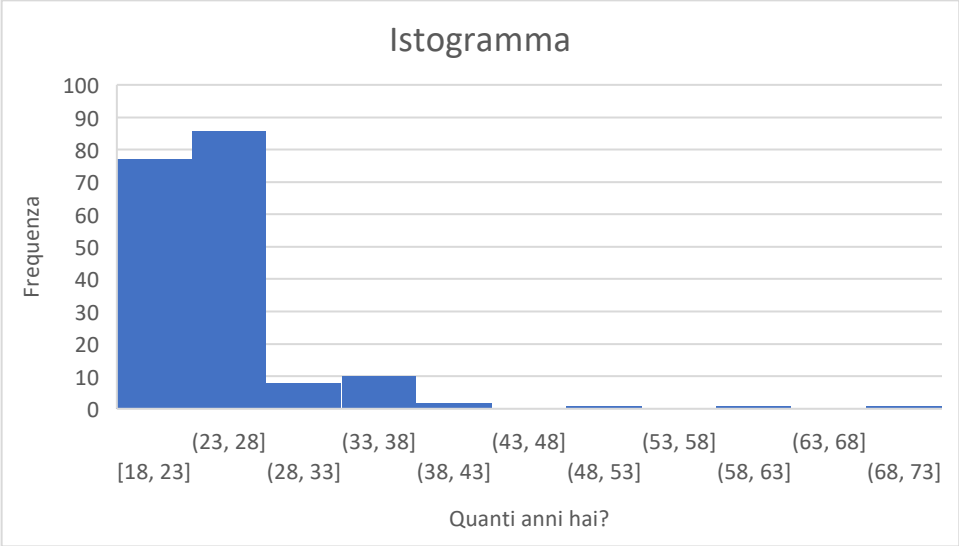
Furthermore, it could be considered to enhance the study with additional variables such as the perceived coolness, the status seeking and the perceived durability, in order to obtain a broader and more comprehensive understanding of the perceptions that these fibers trigger in consumers.

Finally, a more comprehensive study could be conducted in the field of sustainable innovative fibers within the luxury industry. More specifically, it would be valuable to understand which of the many fibers could be more successful in the luxury landscape. For instance, wine leather could be perceived as more refined material compared to apple leather, making it more suitable for luxury buyers. In this regard, investigating this research gap would be intriguing in order to provide luxury brands with more precise guidance on how to attract consumers to green alternatives. It is important to note that all these suggestions are solely speculative and would necessitate further research and analysis to validate or challenge it. Each sample and specific context may present distinct dynamics, so it is crucial to carefully evaluate the finding in the context of the specific study and sample characteristics.

APPENDIX 1

1) Appendix 1 – Demographics

Age



Frequenze

Statistiche

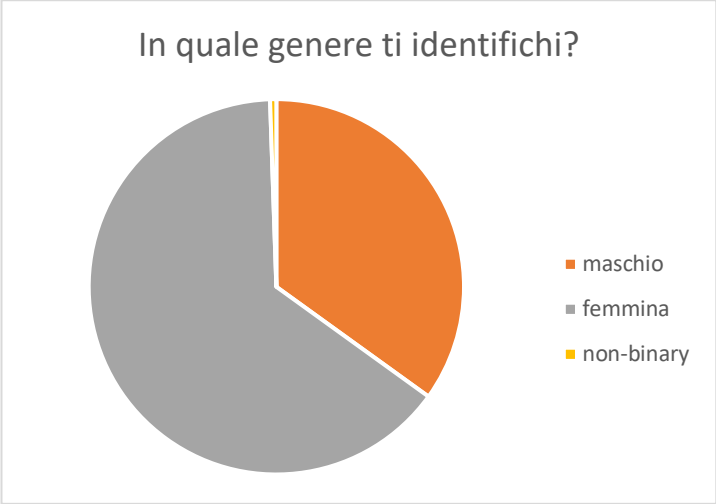
Quanti anni hai?

N	Valido	186
	Mancante	0
Media		25,6398
Minimo		18,00
Massimo		69,00

Quanti anni hai?

		Frequenza	Percentuale	Percentuale valida	Percentuale cumulativa
Valido	18,00	2	1,1	1,1	1,1
	19,00	1	,5	,5	1,6
	20,00	5	2,7	2,7	4,3
	21,00	3	1,6	1,6	5,9
	22,00	11	5,9	5,9	11,8
	23,00	55	29,6	29,6	41,4
	24,00	31	16,7	16,7	58,1
	25,00	22	11,8	11,8	69,9
	26,00	13	7,0	7,0	76,9
	27,00	10	5,4	5,4	82,3
	28,00	10	5,4	5,4	87,6
	29,00	4	2,2	2,2	89,8
	30,00	1	,5	,5	90,3
	31,00	2	1,1	1,1	91,4
	32,00	1	,5	,5	91,9
	34,00	2	1,1	1,1	93,0
	35,00	3	1,6	1,6	94,6
	36,00	3	1,6	1,6	96,2
	37,00	2	1,1	1,1	97,3
	42,00	2	1,1	1,1	98,4
	52,00	1	,5	,5	98,9
	62,00	1	,5	,5	99,5
	69,00	1	,5	,5	100,0
	Totale	186	100,0	100,0	

Gender



Frequenze

Statistiche

In quale genere ti identifichi?

N	Valido	186
	Mancante	0
Modalità		2

In quale genere ti identifichi?

		Frequenza	Percentuale	Percentuale valida	Percentuale cumulativa
Valido	maschio	65	34,9	34,9	34,9
	femmina	120	64,5	64,5	99,5
	non-binary	1	,5	,5	100,0
	Totale	186	100,0	100,0	

Appendix 2 – Survey

1) Intro:

Ciao, mi chiamo Sharon Guido e sono una studentessa di Marketing del corso Analytics And Metrics dell'università LUISS Guido Carli. Sto conducendo uno studio a fini puramente accademici, utili alla stesura della mia Tesi di laurea. Il tema centrale dello studio è l'innovazione "green" nel mondo della moda di lusso. Tutte le risposte fornite saranno completamente anonime, quindi per favore rispondi più apertamente e sinceramente possibile, non esistono risposte sbagliate! Ti ringrazio per il tuo tempo e per la tua preziosa pertecipazione al progetto!

2) Randomized Scenarios:

Il marchio di lusso anonimo ha annunciato il prossimo lancio di una nuova linea di **borsoni da viaggio** completamente eco-sostenibile, realizzata utilizzando una **fibra innovativa ottenuta dalla lavorazione dei residui dell'uva**, nota come **PELLE DI VINO**. A tal proposito l'azienda ha deciso di lanciare questa linea adottando un **design del tutto simile** rispetto a quello generalmente utilizzato per i suoi borsoni tradizionali, cambiando pertanto solo il materiale utilizzato.

Il marchio di lusso anonimo ha annunciato il prossimo lancio di una nuova linea di **borsoni da viaggio** completamente eco sostenibile realizzata utilizzando una **fibra innovativa ottenuta dalla lavorazione dei residui dell'uva**, nota come **PELLE DI VINO**. A tal proposito l'azienda ha deciso di lanciare questa linea adottando un **design del tutto diverso** rispetto a quello generalmente utilizzato per i suoi borsoni tradizionali, cambiando pertanto sia il materiale che il design utilizzato.

Il marchio di lusso anonimo ha annunciato il prossimo lancio di una nuova linea di **borsoni da viaggio** completamente eco sostenibile realizzata utilizzando una **fibra innovativa ottenuta dalla lavorazione di bottiglie di plastica riciclate**, nota come **POLIESTERE RICICLATO**. A tal proposito l'azienda ha deciso di lanciare questa linea adottando un **design del tutto diverso** rispetto a quello generalmente utilizzato per i suoi borsoni tradizionali, cambiando pertanto sia il materiale che il design utilizzato.

Il marchio di lusso anonimo ha annunciato il prossimo lancio di una nuova linea di **borsoni da viaggio** completamente eco sostenibile realizzata utilizzando una **fibra innovativa ottenuta dalla**

lavorazione di bottiglie di plastica riciclate, nota come **POLIESTERE RICICLATO**. A tal proposito l'azienda ha deciso di lanciare questa linea adottando un **design del tutto simile** rispetto a quello generalmente utilizzato per i suoi borsoni tradizionali, cambiando pertanto solo il materiale utilizzato.

Main study

3) WTB

Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni.

	Completamente in disaccordo 1	In disaccordo 2	Abbastanza in disaccordo 3	Nè d'accordo nè in disaccordo 4	Abbastanza d'accordo 5	D'acc 6
Sarei dispost* ad acquistare il prodotto descritto precedentemente.	○	○	○	○	○	○
Consiglierei il prodotto descritto precedentemente a parenti o amici.	○	○	○	○	○	○
Non mi aspetterei alcun problema con il prodotto descritto precedentemente.	○	○	○	○	○	○

4) Perceived Quality

Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni.

	Completamente in disaccordo 1	In disaccordo 2	Abbastanza in disaccordo 3	Nè d'accordo nè in disaccordo 4	Abbastanza d'accordo 5	D'acco 6
Il prodotto descritto precedentemente sembra essere di buona qualità.	○	○	○	○	○	○
Il prodotto descritto precedentemente sembra essere affidabile.	○	○	○	○	○	○
Il prodotto descritto precedentemente sembra essere credibile.	○	○	○	○	○	○
L' opinione che ho del prodotto descritto precedentemente è buona.	○	○	○	○	○	○
Sono cert* che il prodotto descritto precedentemente sarà soddisfacente.	○	○	○	○	○	○

5) Narcissism

Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni.

	Completamente in disaccordo 1	In disaccordo 2	Abbastanza in disaccordo 3	Nè d'accordo nè in disaccordo 4	Abbastanza d'accordo 5	D'acco 6
Credo che usando il prodotto descritto precedentemente avrò sicuramente successo.	○	○	○	○	○	○
Sono sicur* che usando il prodotto descritto precedentemente sarei una persona rilevante.	○	○	○	○	○	○
Usando il prodotto descritto precedentemente voglio attirare l'attenzione degli altri.	○	○	○	○	○	○
Se usassi il prodotto descritto precedentemente mi distinguerei ogni volta.	○	○	○	○	○	○

6) Perceived Fit

Come valuti la combinazione tra la fibra utilizzata nello scenario descritto e il marchio di lusso anonimo?

Diverso	○	○	○	○	○	○	○	Simile
Incoerente	○	○	○	○	○	○	○	Coerente
Atipico	○	○	○	○	○	○	○	Tipico
Non Rappresentativo	○	○	○	○	○	○	○	Rappresentativo

7) Attitude Towards the Product

Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni.

	Completamente in disaccordo 1	In disaccordo 2	Abbastanza in disaccordo 3	Nè d'accordo nè in disaccordo 4	Abbastanza d'accordo 5	D'acc 6
Non apprezzo per niente il prodotto descritto precedentemente.	○	○	○	○	○	○
Apprezzo molto il prodotto descritto precedentemente.	○	○	○	○	○	○
Il prodotto descritto precedentemente è sgradevole.	○	○	○	○	○	○

8) Disgust Index

In che misura il prodotto descritto precedentemente è:

	1	2	3	4	5	6	7
Disgustoso	○	○	○	○	○	○	○
Rivoltante	○	○	○	○	○	○	○
Sporco	○	○	○	○	○	○	○

Manipulation Check

9) Perceived Fiber

Il prodotto precedentemente descritto è composto da:

Residui di uva ○ ○ ○ ○ ○ ○ ○ Residui di plastica riciclata

10) Perceived Design

Il prodotto precedentemente descritto presenta un design:

Simile ai prodotti precedenti del brand ○ ○ ○ ○ ○ ○ ○ Diverso dai prodotti precedenti del brand

11) Perceived Luxury

Il brand precedentemente descritto nello scenario è:

Un brand di Lusso ○ ○ ○ ○ ○ ○ ○ Un brand di Massa

12) Perceived Innovativeness

Il prodotto precedentemente descritto è composto da una fibra:

Poco Innovativa ○ ○ ○ ○ ○ ○ ○ Molto Innovativa

Covariates:

13) Fiber Familiarity

Indicare su una scala da 1 (per niente familiare) a 7 (molto familiare) in quale misura sei familiare con la fibra innovativa utilizzata.

	Per niente Familiare 1	2	3	4	5	6	Molto Familiare 7
Quanto sei familiare con la pelle di vino?	○	○	○	○	○	○	○

14) Fiber Familiarity

Indicare su una scala da 1 (per niente familiare) a 7 (molto familiare) in quale misura sei familiare con la fibra innovativa utilizzata.

	Per niente Familiare 1	2	3	4	5	Molto Familiare 7
Quanto sei familiare con il poliestere riciclato?	○	○	○	○	○	○

15) Environmental Concern

Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni.

	Completamente in disaccordo 1	In disaccordo 2	Abbastanza in disaccordo 3	Nè d'accordo nè in disaccordo 4	Abbastanza d'accordo 5	D'accordo 6
L'equilibrio della natura è molto delicato e facilmente suscettibile.	○	○	○	○	○	○
Quando l'uomo interferisce con la natura, produce spesso conseguenze disastrose.	○	○	○	○	○	○
Gli umani devono vivere in armonia con la natura per riuscire a sopravvivere.	○	○	○	○	○	○
La specie umana sta abusando dell'ambiente.	○	○	○	○	○	○
La specie umana è stata creata per governare sul resto della natura.	○	○	○	○	○	○

Le piante e gli animali esistono primariamente per essere sfruttati dagli uomini.	○	○	○	○	○	○
Per mantenere un'economia sana, dovremo sviluppare un'economia stabile in cui la crescita industriale è controllata.	○	○	○	○	○	○
La Terra è come una nave spaziale con solo spazio e risorse limitate.	○	○	○	○	○	○
Ci sono limiti alla crescita oltre i quali la nostra società industrializzata non può espandersi.	○	○	○	○	○	○
Gli uomini hanno il diritto di modificare l'ambiente naturale per soddisfare le loro esigenze.	○	○	○	○	○	○

Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni.

	Completamente in disaccordo 1	In disaccordo 2	Abbastanza in disaccordo 3	Nè d'accordo nè in disaccordo 4	Abbastanza d'accordo 5	D'accor 6
Se le persone credono che sono troppo non convenzionale, mi infastidisco.	○	○	○	○	○	○
Sentirmi diverso in una folla di persone mi fa sentire a disagio.	○	○	○	○	○	○
Preferirei essere come chiunque altro piuttosto che essere chiamato stran*.	○	○	○	○	○	○
Mi piace indossare una divisa perché mi fa sentire fier* di essere un membro dell'organizzazione che rappresento.	○	○	○	○	○	○
Non devo necessariamente vivere secondo le regole e gli standards della società.	○	○	○	○	○	○
Cerco sempre di seguire le regole.	○	○	○	○	○	○

Se non sono d'accordo con l'opinione di un superiore, non lo tengo per me.	○	○	○	○	○	○
Nelle riunioni esprimo le mie opinioni per oppormi a coloro che credo stiano sbagliando.	○	○	○	○	○	○
Tendo ad esprimere la mia opinione pubblicamente, a prescindere da ciò che dicono gli altri.	○	○	○	○	○	○

Quanto spesso acquisti prodotti di lusso?

Mai — Spesso — Acquisto solo prodotti di lusso

0	1	2	3	4	5	6	7	8	9	10

Demographics

Lo studio è quasi terminato. Ora ti verrà chiesto di rispondere ad alcune domande su di te.

In quale genere ti identifichi?

- maschio
- femmina
- non-binary

Quanti anni hai?

Di cosa ti occupi?

Secondo te, quale potrebbe essere il brand "anonimo" descritto nello scenario? Prova ad indovinare!

APPENDIX 3

Output SPSS

Reliability Tests:

Affidabilità

Scala: WTB

Riepilogo elaborazione casi

		N	%
Casi	Valido	186	100,0
	Escluso[a]	0	,0
	Totale	186	100,0

a. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabili...

Alpha di Cronbach	N. di elementi
,865	3

Statistiche di affidabili...

Alpha di Cronbach	N. di elementi
,865	3

Statistiche degli elementi

	Media	Deviazione std.	N
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Sarei dispost* ad acquistare il prodotto descritto precedentemente.	5,12	1,506	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Consiglierei il prodotto descritto precedentemente a parenti o amici.	5,15	1,498	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Non mi aspetterei alcun problema con il prodotto descritto precedentemente.	4,58	1,672	186

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Alpha di Cronbach se viene eliminato l'elemento
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Sarei dispost* ad acquistare il prodotto descritto precedentemente.	9,72	8,094	,807	,755
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Consiglierei il prodotto descritto precedentemente a parenti o amici.	9,69	8,170	,801	,760
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Non mi aspetterei alcun problema con il prodotto descritto precedentemente.	10,26	8,314	,639	,915

Affidabilità

Scala: PERCEIVED_QUALITY

Riepilogo elaborazione casi

		N	%
Casi	Valido	186	100,0
	Escluso[a]	0	,0
	Totale	186	100,0

a. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabili...

Alpha di Cronbach	N. di elementi
,933	5

Statistiche di affidabili...

Alpha di Cronbach	N. di elementi
,933	5

Statistiche degli elementi

	Media	Deviazione std.	N
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. – Il prodotto descritto precedentemente sembra essere di buona qualità.	4,75	1,529	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. – Il prodotto descritto precedentemente sembra essere affidabile.	4,84	1,473	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. – Il prodotto descritto precedentemente sembra essere credibile.	5,11	1,341	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. – L' opinione che ho del prodotto descritto precedentemente è buona.	5,11	1,427	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. – Sono cert* che il prodotto descritto precedentemente sarà soddisfacente.	4,61	1,496	186

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Alpha di Cronbach se viene eliminato l'elemento
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Il prodotto descritto precedentemente sembra essere di buona qualità.	19,68	26,155	,849	,913
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Il prodotto descritto precedentemente sembra essere affidabile.	19,59	26,416	,871	,909
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Il prodotto descritto precedentemente sembra essere credibile.	19,32	28,747	,781	,926
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - L' opinione che ho del prodotto descritto precedentemente è buona.	19,32	27,353	,830	,917
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Sono cert* che il prodotto descritto precedentemente sarà soddisfacente.	19,82	27,220	,789	,925

Affidabilità

Scala: NARCISSISM

Riepilogo elaborazione casi

		N	%
Casi	Valido	186	100,0
	Escluso[a]	0	,0
	Totale	186	100,0

a. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabili...

Alpha di Cronbach	N. di elementi
,859	4

Statistiche degli elementi

	Media	Deviazione std.	N
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Credo che usando il prodotto descritto precedentemente avrò sicuramente successo.	4,23	1,408	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Sono sicur* che usando il prodotto descritto precedentemente sarei una persona rilevante.	3,92	1,585	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Usando il prodotto descritto precedentemente voglio attirare l'attenzione degli altri.	3,56	1,736	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Se usassi il prodotto descritto precedentemente mi distinguerei ogni volta.	4,18	1,720	186

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Alpha di Cronbach se viene eliminato l'elemento
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Credo che usando il prodotto descritto precedentemente avrò sicuramente successo.	11,66	19,458	,644	,846
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Sono sicur* che usando il prodotto descritto precedentemente sarei una persona rilevante.	11,96	16,577	,801	,780
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Usando il prodotto descritto precedentemente voglio attirare l'attenzione degli altri.	12,33	16,665	,688	,829
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Se usassi il prodotto descritto precedentemente mi distinguerei ogni volta.	11,71	16,629	,702	,823

Affidabilità

Scala: FIT

Riepilogo elaborazione casi

		N	%
Casi	Valido	185	99,5
	Escluso[a]	1	,5
	Totale	186	100,0

a. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabili...

Alpha di Cronbach	N. di elementi
,804	4

Statistiche degli elementi

	Media	Deviazione std.	N
Come valuti la combinazione tra la fibra utilizzata nello scenario descritto e il marchio di lusso anonimo? - Diverso: Simile	3,86	2,013	185
Come valuti la combinazione tra la fibra utilizzata nello scenario descritto e il marchio di lusso anonimo? - Incoerente:Coerente	4,65	1,920	185
Come valuti la combinazione tra la fibra utilizzata nello scenario descritto e il marchio di lusso anonimo? - Atipico: Tipico	3,44	2,024	185
Come valuti la combinazione tra la fibra utilizzata nello scenario descritto e il marchio di lusso anonimo? - Non Rappresentativo: Rappresentativo	4,62	1,942	185

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Alpha di Cronbach se viene eliminato l'elemento
Come valuti la combinazione tra la fibra utilizzata nello scenario descritto e il marchio di lusso anonimo? - Diverso: Simile	12,71	22,849	,645	,742
Come valuti la combinazione tra la fibra utilizzata nello scenario descritto e il marchio di lusso anonimo? - Incoerente:Coerente	11,92	23,581	,647	,742
Come valuti la combinazione tra la fibra utilizzata nello scenario descritto e il marchio di lusso anonimo? - Atipico: Tipico	13,13	24,461	,538	,794
Come valuti la combinazione tra la fibra utilizzata nello scenario descritto e il marchio di lusso anonimo? - Non Rappresentativo: Rappresentativo	11,96	23,357	,650	,740

Affidabilità

Scala: ATTITUTE_TDP

Riepilogo elaborazione casi

		N	%
Casi	Valido	186	100,0
	Escluso[a]	0	,0
	Totale	186	100,0

a. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabili...

Alpha di Cronbach	N. di elementi
,787	3

Statistiche degli elementi

	Media	Deviazione std.	N
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Non apprezzo per niente il prodotto descritto precedentemente.	5,88	,974	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Apprezzo molto il prodotto descritto precedentemente.	5,17	1,320	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Il prodotto descritto precedentemente è sgradevole.	5,99	,918	186

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Alpha di Cronbach se viene eliminato l'elemento
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Non apprezzo per niente il prodotto descritto precedentemente.	11,16	3,855	,689	,658
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Apprezzo molto il prodotto descritto precedentemente.	11,87	2,913	,617	,770
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Il prodotto descritto precedentemente è sgradevole.	11,05	4,202	,635	,719

Affidabilità

Scala: DISGUST_INDEX

Riepilogo elaborazione casi

		N	%
Casi	Valido	186	100,0
	Escluso[a]	0	,0
	Totale	186	100,0

a. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabili...

Alpha di Cronbach	N. di elementi
,762	3

Statistiche degli elementi

	Media	Deviazione std.	N
In che misura il prodotto descritto precedentemente è: - Disgustoso	1,57	1,114	186
In che misura il prodotto descritto precedentemente è: - Rivoltante	1,52	1,140	186
In che misura il prodotto descritto precedentemente è: - Sporco	1,67	1,155	186

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Alpha di Cronbach se viene eliminato l'elemento
In che misura il prodotto descritto precedentemente è: - Disgustoso	3,19	3,779	,660	,605
In che misura il prodotto descritto precedentemente è: - Rivoltante	3,24	3,730	,647	,619
In che misura il prodotto descritto precedentemente è: - Sporco	3,09	4,246	,483	,803

Affidabilità

Scala: ENVIRONMENTAL_CONCERN

Riepilogo elaborazione casi

		N	%
Casi	Valido	186	100,0
	Escluso[a]	0	,0
	Totale	186	100,0

a. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabili...

Alpha di Cronbach	N. di elementi
,484	10

Statistiche degli elementi

	Media	Deviazione std.	N
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - L'equilibrio della natura è molto delicato e facilmente suscettibile.	5,77	1,296	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Quando l'uomo interferisce con la natura, produce spesso conseguenze disastrose.	5,85	1,246	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Gli umani devono vivere in armonia con la natura per riuscire a sopravvivere.	6,28	,870	186

Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - La specie umana sta abusando dell'ambiente.	6,27	1,037	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - La specie umana è stata creata per governare sul resto della natura.	2,70	1,655	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Le piante e gli animali esistono primariamente per essere sfruttati dagli uomini.	2,19	1,415	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Per mantenere un'economia sana, dovremo sviluppare un'economia stabile in cui la crescita industriale è controllata.	5,84	1,146	186

Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - La Terra è come una nave spaziale con solo spazio e risorse limitate.	5,27	1,602	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Ci sono limiti alla crescita oltre i quali la nostra società industrializzata non può espandersi.	5,15	1,534	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Gli uomini hanno il diritto di modificare l'ambiente naturale per soddisfare le loro esigenze.	2,36	1,454	186

Statistiche elemento-totale

	Media scala se viene eliminato l'elemento	Varianza scala se viene eliminato l'elemento	Correlazione elemento-totale corretta	Alpha di Cronbach se viene eliminato l'elemento
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - L'equilibrio della natura è molto delicato e facilmente suscettibile.	41,92	25,475	,383	,398
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Quando l'uomo interferisce con la natura, produce spesso conseguenze disastrose.	41,84	25,473	,408	,392
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Gli umani devono vivere in armonia con la natura per riuscire a sopravvivere.	41,41	28,287	,337	,433

Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - La specie umana sta abusando dell'ambiente.	41,42	28,581	,226	,453
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - La specie umana è stata creata per governare sul resto della natura.	44,99	27,411	,116	,492
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Le piante e gli animali esistono primariamente per essere sfruttati dagli uomini.	45,51	28,294	,124	,483
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Per mantenere un'economia sana, dovremo sviluppare un'economia stabile in cui la crescita industriale è controllata.	41,86	28,424	,198	,459

Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - La Terra è come una nave spaziale con solo spazio e risorse limitate.	42,42	25,478	,254	,437
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Ci sono limiti alla crescita oltre i quali la nostra società industrializzata non può espandersi.	42,55	26,530	,207	,455
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Gli uomini hanno il diritto di modificare l'ambiente naturale per soddisfare le loro esigenze.	45,34	31,458	-,087	,551

Affidabilità

Scala: NEED_UNIQUENESS

Riepilogo elaborazione casi

		N	%
Casi	Valido	186	100,0
	Escluso[a]	0	,0
	Totale	186	100,0

a. Eliminazione listwise basata su tutte le variabili nella procedura.

Statistiche di affidabili...

Alpha di Cronbach	N. di elementi
,330	9

Statistiche degli elementi

	Media	Deviazione std.	N
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Se le persone credono che sono troppo non convenzionale, mi infastidisco.	3,44	1,670	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Sentirmi diverso in una folla di persone mi fa sentire a disagio.	3,03	1,616	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Preferirei essere come chiunque altro piuttosto che essere chiamato stran*.	2,38	1,441	186

Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Mi piace indossare una divisa perché mi fa sentire fier* di essere un membro dell'organizzazione che rappresento.	3,53	1,648	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Non devo necessariamente vivere secondo le regole e gli standards della società.	5,14	1,403	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Cerco sempre di seguire le regole.	4,76	1,166	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Se non sono d'accordo con l'opinione di un superiore, non lo tengo per me.	4,57	1,413	186

Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Nelle riunioni esprimo le mie opinioni per oppormi a coloro che credo stiano sbagliando.	5,11	1,173	186
Indicare su una scala da 1 (completamente in disaccordo) a 7 (completamente d'accordo) in quale misura sei d'accordo o in disaccordo con le seguenti affermazioni. - Tendo ad esprimere la mia opinione pubblicamente, a prescindere da ciò che dicono gli altri.	5,19	1,344	186

Manipulation Check

Perceived Fiber

Test t

Statistiche gruppo

	FIBRA_SOSTENIBILE	N	Media	Deviazione std.	Errore standard della media
FIBER_MEAN	,00	98	6,3776	1,43961	,14542
	1,00	87	2,1149	1,93754	,20773

Test campioni indipendenti

		Test di Levene per l'eguaglianza delle varianze		Test t per l'eguaglianza delle medie							
						Significatività		Differenza della media	Differenza errore std.	Intervallo di confidenza della differenza di 95%	
		F	Sign.	t	gl	P unilaterale	P bilaterale			Inferiore	Superiore
FIBER_MEAN	Varianze uguali presunte	10,431	,001	17,103	183	<,001	<,001	4,26261	,24923	3,77087	4,75435
	Varianze uguali non presunte			16,810	157,428	<,001	<,001	4,26261	,25357	3,76177	4,76345

Dimensioni effetto campioni indipendenti

		Standardizzatore[a]	Stima del punto	Intervallo di confidenza 95% Inferiore	Superiore
FIBER_MEAN	D di Cohen	1,69196	2,519	2,130	2,904
	Correzione di Hedges	1,69894	2,509	2,121	2,893
	Delta di Glass	1,93754	2,200	1,760	2,634

a. Il denominatore utilizzato per stimare le dimensioni dell'effetto.
D di Cohen utilizza la deviazione standard raggruppata.
La correzione Hedges utilizza la deviazione standard raggruppata, più un fattore di correzione.
Il delta di Glass utilizza la deviazione standard del campione del gruppo di controllo.

Perceived Design

Test t

Statistiche gruppo

	DESIGN_SD	N	Media	Deviazione std.	Errore standard della media
DESIGN_MEAN	,00	94	5,6170	1,97351	,20355
	1,00	91	3,5824	2,52572	,26477

Test campioni indipendenti

		Test di Levene per l'eguaglianza delle varianze		Test t per l'eguaglianza delle medie							
						Significatività				Intervallo di confidenza della differenza di 95%	
		F	Sign.	t	gl	P unilaterale	P bilaterale	Differenza della media	Differenza errore std.	Inferiore	Superiore
DESIGN_MEAN	Varianze uguali presunte	18,809	<,001	6,116	183	<,001	<,001	2,03460	,33265	1,37827	2,69094
	Varianze uguali non presunte			6,092	170,267	<,001	<,001	2,03460	,33397	1,37535	2,69386

Dimensioni effetto campioni indipendenti

		Standardizzatore[a]	Stima del punto	Intervallo di confidenza 95% Inferiore	Superiore
DESIGN_MEAN	D di Cohen	2,26200	,899	,596	1,201
	Correzione di Hedges	2,27132	,896	,593	1,196
	Delta di Glass	2,52572	,806	,492	1,115

a. Il denominatore utilizzato per stimare le dimensioni dell'effetto.
D di Cohen utilizza la deviazione standard raggruppata.
La correzione Hedges utilizza la deviazione standard raggruppata, più un fattore di correzione.
Il delta di Glass utilizza la deviazione standard del campione del gruppo di controllo.

Perceived Luxury

Test t

Statistiche gruppo

	FIBRA_	N	Media	Deviazione std.	Errore standard della media
Il brand precedentemente descritto nello scenario è: - Un brand di Lusso:Un brand di Massa	,00	98	1,71	1,513	,153
	1,00	87	1,80	1,634	,175

Test campioni indipendenti

		Test di Levene per l'eguaglianza delle varianze		Test t per l'eguaglianza delle medie							
						Significatività		Differenza della media	Differenza errore std.	Intervallo di confidenza della differenza di 95%	
		F	Sign.	t	gl	P unilaterale	P bilaterale			Inferiore	Superiore
Il brand precedentemente descritto nello scenario è: - Un brand di Lusso:Un brand di Massa	Varianze uguali presunte	,608	,437	-,390	183	,348	,697	-,090	,231	-,547	,366
	Varianze uguali non presunte			-,388	176,208	,349	,698	-,090	,232	-,549	,369

Dimensioni effetto campioni indipendenti

		Standardizzatore[a]	Stima del punto	Intervallo di confidenza 95%	
				Inferiore	Superiore
Il brand precedentemente descritto nello scenario è: - Un brand di Lusso:Un brand di Massa	D di Cohen	1,571	-,057	-,346	,231
	Correzione di Hedges	1,578	-,057	-,345	,230
	Delta di Glass	1,634	-,055	-,344	,234

a. Il denominatore utilizzato per stimare le dimensioni dell'effetto.
D di Cohen utilizza la deviazione standard raggruppata.
La correzione Hedges utilizza la deviazione standard raggruppata, più un fattore di correzione.
Il delta di Glass utilizza la deviazione standard del campione del gruppo di controllo.

Perceived Innovativeness

Test t

Statistiche gruppo

	FIBRA_	N	Media	Deviazione std.	Errore standard della media
Il prodotto precedentemente descritto è composto da una fibra: - Poco Innovativa:Molto Innovativa	,00	98	5,44	1,927	,195
	1,00	87	6,29	1,329	,142

Test campioni indipendenti

		Test di Levene per l'eguaglianza delle varianze		Test t per l'eguaglianza delle medie							
						Significatività		Differenza della media	Differenza errore std.	Intervallo di confidenza della differenza di 95%	
		F	Sign.	t	gl	P unilaterale	P bilaterale			Inferiore	Superiore
Il prodotto precedentemente descritto è composto da una fibra: - Poco Innovativa:Molto Innovativa	Varianze uguali presunte	17,286	<,001	-3,444	183	<,001	<,001	-,849	,246	-1,335	-,362
	Varianze uguali non presunte			-3,518	172,816	<,001	<,001	-,849	,241	-1,325	-,373

Dimensioni effetto campioni indipendenti

		Standardizzatore[a]	Stima del punto	Intervallo di confidenza 95%	
				Inferiore	Superiore
Il prodotto precedentemente descritto è composto da una fibra: - Poco Innovativa:Molto Innovativa	D di Cohen	1,673	-,507	-,800	-,213
	Correzione di Hedges	1,679	-,505	-,797	-,212
	Delta di Glass	1,329	-,639	-,941	-,333

a. Il denominatore utilizzato per stimare le dimensioni dell'effetto.
D di Cohen utilizza la deviazione standard raggruppata.
La correzione Hedges utilizza la deviazione standard raggruppata, più un fattore di correzione.
Il delta di Glass utilizza la deviazione standard del campione del gruppo di controllo.

H1a TEST:

Test t

Statistiche gruppo

	FIBRA_SOSTENIBILE	N	Media	Deviazione std.	Errore standard della media
WTB_MEAN	,00	99	4,7710	1,54718	,15550
	1,00	87	5,1456	1,15100	,12340

Test campioni indipendenti

		Test di Levene per l'eguaglianza delle varianze		Test t per l'eguaglianza delle medie							
						Significatività				Intervallo di confidenza della differenza di 95%	
		F	Sign.	t	gl	P unilaterale	P bilaterale	Differenza della media	Differenza errore std.	Inferiore	Superiore
WTB_MEAN	Varianze uguali presunte	6,584	,011	-1,852	184	,033	,066	-,37455	,20225	-,77357	,02447
	Varianze uguali non presunte			-1,887	179,278	,030	,061	-,37455	,19851	-,76627	,01717

Dimensioni effetto campioni indipendenti

		Standardizzatore[a]	Stima del punto	Intervallo di confidenza 95%	
				Inferiore	Superiore
WTB_MEAN	D di Cohen	1,37628	-,272	-,561	,018
	Correzione di Hedges	1,38192	-,271	-,559	,018
	Delta di Glass	1,15100	-,325	-,617	-,032

a. Il denominatore utilizzato per stimare le dimensioni dell'effetto.
D di Cohen utilizza la deviazione standard raggruppata.
La correzione Hedges utilizza la deviazione standard raggruppata, più un fattore di correzione.
Il delta di Glass utilizza la deviazione standard del campione del gruppo di controllo.

H1b TEST:

Test t

Statistiche gruppo

	FIBRA_SOSTENIBILE	N	Media	Deviazione std.	Errore standard della media
PERCEIVED_QUALITY_MEAN	,00	99	4,6000	1,46162	,14690
	1,00	87	5,2115	,97902	,10496

Test campioni indipendenti

		Test di Levene per l'eguaglianza delle varianze		Test t per l'eguaglianza delle medie							
						Significatività				Intervallo di confidenza della differenza di 95%	
		F	Sign.	t	gl	P unilaterale	P bilaterale	Differenza della media	Differenza errore std.	Inferiore	Superiore
PERCEIVED_QUALITY_MEAN	Varianze uguali presunte	13,766	<,001	-3,304	184	<,001	,001	-,61149	,18506	-,97660	-,24639
	Varianze uguali non presunte			-3,387	172,402	<,001	<,001	-,61149	,18054	-,96785	-,25513

Dimensioni effetto campioni indipendenti

		Standardizzatore[a]	Stima del punto	Intervallo di confidenza 95%	
				Inferiore	Superiore
PERCEIVED_QUALITY_MEAN	D di Cohen	1,25929	-,486	-,777	-,193
	Correzione di Hedges	1,26445	-,484	-,774	-,192
	Delta di Glass	,97902	-,625	-,926	-,320

a. Il denominatore utilizzato per stimare le dimensioni dell'effetto.
D di Cohen utilizza la deviazione standard raggruppata.
La correzione Hedges utilizza la deviazione standard raggruppata, più un fattore di correzione.
Il delta di Glass utilizza la deviazione standard del campione del gruppo di controllo.

H2a TEST:

Analisi univariata di varianza

Fattori tra soggetti

		N
FIBRA_SOSTENIBILE	,00	99
	1,00	87
DESIGN_SD	,00	95
	1,00	91

Statistiche descrittive

Variabile dipendente: WTB_MEAN

FIBRA_SOSTENIBILE	DESIGN_SD	Medio	Deviazione std.	N
,00	,00	4,3267	1,70033	50
	1,00	5,2245	1,23301	49
	Totale	4,7710	1,54718	99
1,00	,00	5,0074	1,01377	45
	1,00	5,2937	1,27771	42
	Totale	5,1456	1,15100	87
Totale	,00	4,6491	1,45082	95
	1,00	5,2564	1,24730	91
	Totale	4,9462	1,38529	186

Test di Levene di eguaglianza delle varianze dell'errore[a,b]

		Statistica di Levene	gl1	gl2	Sig.
WTB_MEAN	Basato sulla media	4,540	3	182	,004
	Basato sulla mediana	3,487	3	182	,017
	Basato sulla mediana e con il grado di libertà adattato	3,487	3	152,768	,017
	Basato sulla media ritagliata	4,358	3	182	,005

Verifica l'ipotesi nulla che la varianza dell'errore della variabile dipendente sia uguale tra i gruppi.

a. Variabile dipendente: WTB_MEAN

b. Disegno: Intercetta + FIBRA_SOSTENIBILE + DESIGN_SD + FIBRA_SOSTENIBILE * DESIGN_SD

Test di effetti tra soggetti

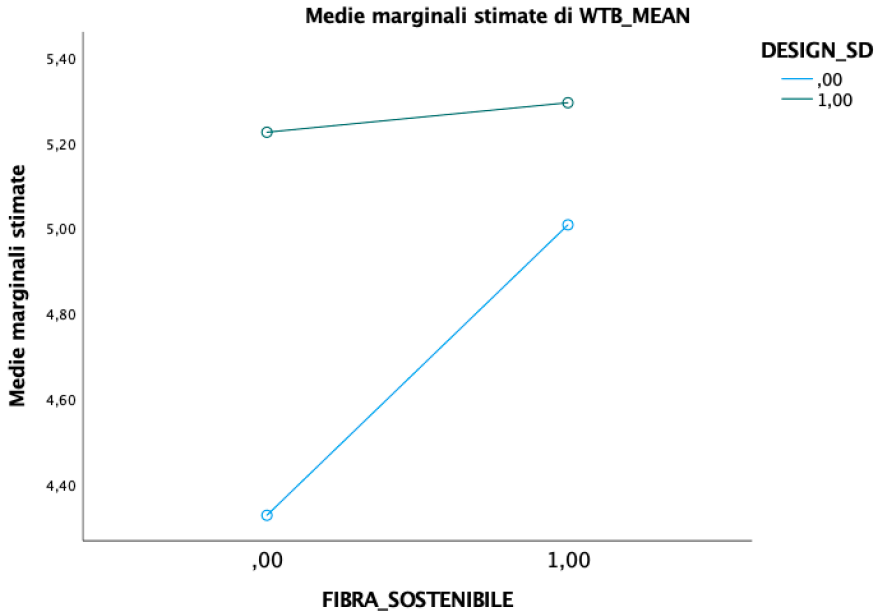
Variabile dipendente: WTB_MEAN

Origine	Somma dei quadrati di tipo III	df	Media quadratica	F	Sig.	Eta quadrato parziale	Parametro noncent.	Potenza osservata[b]
Modello corretto	28,225[a]	3	9,408	5,240	,002	,080	15,719	,924
Intercetta	4559,357	1	4559,357	2539,230	<,001	,933	2539,230	1,000
FIBRA_SOSTENIBILE	6,506	1	6,506	3,623	,059	,020	3,623	,474
DESIGN_SD	16,220	1	16,220	9,033	,003	,047	9,033	,848
FIBRA_SOSTENIBILE * DESIGN_SD	4,327	1	4,327	2,410	,122	,013	2,410	,339
Errore	326,793	182	1,796					
Totale	4905,556	186						
Totale corretto	355,018	185						

a. R-quadrato = ,080 (R-quadrato adattato = ,064)

b. Calcolato utilizzando alfa = ,05

Grafici di profili



H2b TEST:

Analisi univariata di varianza

Fattori tra soggetti

		N
FIBRA_SOSTENIBILE	,00	99
	1,00	87
DESIGN_SD	,00	95
	1,00	91

Statistiche descrittive

Variabile dipendente: PERCEIVED_QUALITY_MEAN

FIBRA_SOSTENIBILE	DESIGN_SD	Medio	Deviazione std.	N
,00	,00	4,3960	1,63607	50
	1,00	4,8082	1,24161	49
	Totale	4,6000	1,46162	99
1,00	,00	5,1022	,91911	45
	1,00	5,3286	1,03765	42
	Totale	5,2115	,97902	87
Totale	,00	4,7305	1,38434	95
	1,00	5,0484	1,17505	91
	Totale	4,8860	1,29261	186

Test di Levene di eguaglianza delle varianze dell'errore[a,b]

		Statistica di Levene	gl1	gl2	Sig.
PERCEIVED_QUALITY_MEAN	Basato sulla media	6,439	3	182	<,001
	Basato sulla mediana	4,952	3	182	,002
	Basato sulla mediana e con il grado di libertà adattato	4,952	3	153,498	,003
	Basato sulla media ritagliata	6,027	3	182	<,001

Verifica l'ipotesi nulla che la varianza dell'errore della variabile dipendente sia uguale tra i gruppi.

a. Variabile dipendente: PERCEIVED_QUALITY_MEAN

b. Disegno: Intercetta + FIBRA_SOSTENIBILE + DESIGN_SD + FIBRA_SOSTENIBILE * DESIGN_SD

Test di effetti tra soggetti

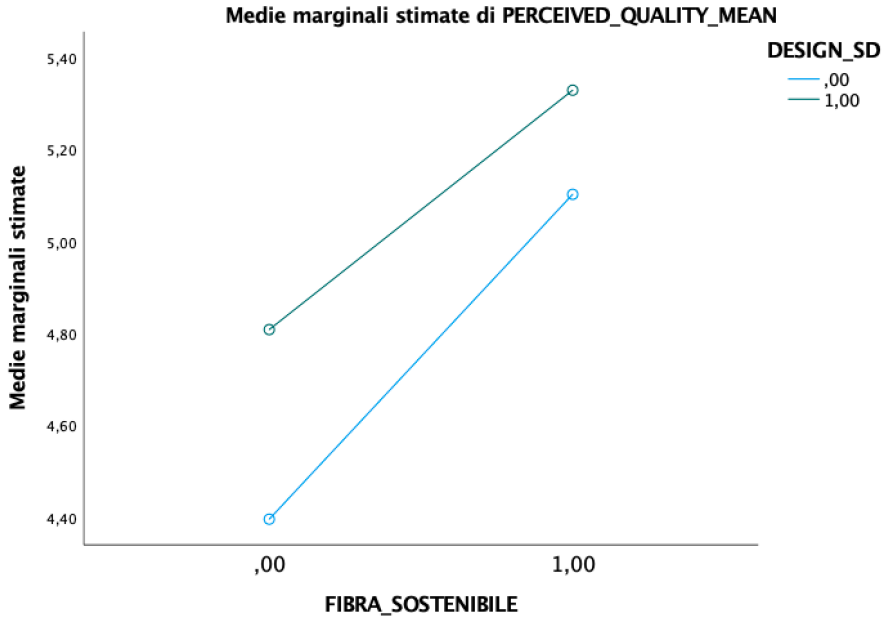
Variabile dipendente: PERCEIVED_QUALITY_MEAN

Origine	Somma dei quadrati di tipo III	df	Media quadratica	F	Sig.	Eta quadrato parziale	Parametro noncent.	Potenza osservata[b]
Modello corretto	22,632[a]	3	7,544	4,793	,003	,073	14,379	,898
Intercetta	4460,110	1	4460,110	2833,581	<,001	,940	2833,581	1,000
FIBRA_SOSTENIBILE	17,407	1	17,407	11,059	,001	,057	11,059	,911
DESIGN_SD	4,717	1	4,717	2,997	,085	,016	2,997	,406
FIBRA_SOSTENIBILE * DESIGN_SD	,399	1	,399	,254	,615	,001	,254	,079
Errore	286,471	182	1,574					
Totale	4749,520	186						
Totale corretto	309,104	185						

a. R-quadrato = ,073 (R-quadrato adattato = ,058)

b. Calcolato utilizzando alfa = ,05

Grafici di profili



H3a TEST:

Matrice

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.0 *****************

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

**************************************************************************
Model  : 7
    Y  : WTB_M
    X  : FIBRA_
    M  : NARCIS
    W  : DESIGN

Sample
Size:  186

**************************************************************************
OUTCOME VARIABLE:
 NARCIS

Model Summary
          R       R-sq        MSE     F(HC4)        df1        df2          p
       ,208       ,043      1,789      2,459      3,000    182,000       ,064

Model
              coeff    se(HC4)          t          p       LLCI       ULCI
constant      3,615       ,182     19,892       ,000      3,256      3,974
FIBRA_         ,268       ,261      1,026       ,306       -,248       ,784
DESIGN         ,436       ,257      1,699       ,091       -,070       ,942
Int_1          ,079       ,397       ,200       ,842       -,705       ,863

Product terms key:
 Int_1    :        FIBRA_   x        DESIGN

Test(s) of highest order unconditional interaction(s):
       R2-chng     F(HC4)        df1        df2          p
X*W       ,000       ,040      1,000    182,000       ,842
----------
```

```
----------
    Focal predict: FIBRA_   (X)
          Mod var: DESIGN   (W)

Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/
   FIBRA_     DESIGN     NARCIS     .
BEGIN DATA.
       ,000       ,000      3,615
      1,000       ,000      3,883
       ,000      1,000      4,051
      1,000      1,000      4,399
END DATA.
GRAPH/SCATTERPLOT=
 FIBRA_   WITH     NARCIS   BY       DESIGN   .

************************************************************************
OUTCOME VARIABLE:
 WTB_M

Model Summary
          R       R-sq        MSE     F(HC4)        df1        df2          p
       ,427       ,183      1,586     15,513      2,000    183,000       ,000

Model
              coeff    se(HC4)          t          p       LLCI       ULCI
constant      3,175       ,361      8,796       ,000      2,463      3,888
FIBRA_         ,249       ,179      1,387       ,167      -,105       ,603
NARCIS         ,417       ,077      5,442       ,000       ,266       ,568

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

Direct effect of X on Y
     Effect    se(HC4)          t          p       LLCI       ULCI
       ,249       ,179      1,387       ,167      -,105       ,603

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 FIBRA_      ->    NARCIS      ->    WTB_M

     DESIGN     Effect     BootSE   BootLLCI   BootULCI
       ,000       ,112       ,117      -,094       ,371
      1,000       ,145       ,127      -,103       ,401

---

*********** BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS ************

OUTCOME VARIABLE:
 NARCIS

             Coeff   BootMean     BootSE   BootLLCI   BootULCI
constant     3,615      3,611       ,182      3,259      3,975
FIBRA_         ,268       ,275       ,263      -,246       ,788
DESIGN         ,436       ,435       ,258      -,084       ,936
Int_1          ,079       ,076       ,404      -,718       ,889

----------

OUTCOME VARIABLE:
 WTB_M

             Coeff   BootMean     BootSE   BootLLCI   BootULCI
constant     3,175      3,174       ,351      2,495      3,873
FIBRA_         ,249       ,247       ,178      -,096       ,602
NARCIS         ,417       ,417       ,075       ,268       ,556

************************ 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

NOTE: A heteroscedasticity consistent standard error and covariance matrix estimator was used.

------ END MATRIX -----
```

H3b TEST:

Matrice

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.0 *****************

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

**************************************************************************
Model  : 7
    Y  : PERC_Q
    X  : FIBRA_
    M  : NARCIS
    W  : DESIGN

Sample
Size:  186

**************************************************************************
OUTCOME VARIABLE:
 NARCIS

Model Summary
          R       R-sq        MSE     F(HC4)        df1        df2          p
       ,208       ,043      1,789      2,459      3,000    182,000       ,064

Model
              coeff    se(HC4)          t          p       LLCI       ULCI
constant      3,615       ,182     19,892       ,000      3,256      3,974
FIBRA_         ,268       ,261      1,026       ,306      -,248       ,784
DESIGN         ,436       ,257      1,699       ,091      -,070       ,942
Int_1          ,079       ,397       ,200       ,842      -,705       ,863

Product terms key:
 Int_1    :        FIBRA_   x        DESIGN

Test(s) of highest order unconditional interaction(s):
       R2-chng     F(HC4)        df1        df2          p
X*W       ,000       ,040      1,000    182,000       ,842
----------
    Focal predict: FIBRA_   (X)
          Mod var: DESIGN   (W)

Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce plot.
```

```
DATA LIST FREE/
   FIBRA_     DESIGN     NARCIS     .
BEGIN DATA.
       ,000       ,000      3,615
      1,000       ,000      3,883
       ,000      1,000      4,051
      1,000      1,000      4,399
END DATA.
GRAPH/SCATTERPLOT=
 FIBRA_   WITH     NARCIS   BY       DESIGN   .

************************************************************************
OUTCOME VARIABLE:
 PERC_Q

Model Summary
          R       R-sq        MSE     F(HC4)        df1        df2          p
       ,461       ,213      1,330     22,509      2,000    183,000       ,000

Model
              coeff    se(HC4)          t          p       LLCI       ULCI
constant      3,145       ,322      9,765       ,000      2,510      3,781
FIBRA_         ,497       ,168      2,959       ,003       ,166       ,829
NARCIS         ,380       ,071      5,332       ,000       ,239       ,520

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

Direct effect of X on Y
     Effect    se(HC4)          t          p       LLCI       ULCI
       ,497       ,168      2,959       ,003       ,166       ,829

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 FIBRA_      ->    NARCIS      ->    PERC_Q

     DESIGN     Effect     BootSE   BootLLCI   BootULCI
       ,000       ,102       ,108      -,087       ,343
      1,000       ,132       ,116      -,093       ,374

Index of moderated mediation (difference between conditional indirect effects):
            Index     BootSE   BootLLCI   BootULCI
DESIGN       ,030       ,155      -,298       ,329
---

*********** BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS ************

OUTCOME VARIABLE:
 NARCIS

             Coeff   BootMean     BootSE   BootLLCI   BootULCI
constant     3,615      3,613       ,182      3,261      3,969
FIBRA_        ,268       ,274       ,263      -,240       ,784
DESIGN        ,436       ,439       ,253      -,060       ,931
Int_1         ,079       ,073       ,399      -,707       ,869

----------

OUTCOME VARIABLE:
 PERC_Q

             Coeff   BootMean     BootSE   BootLLCI   BootULCI
constant     3,145      3,144       ,314      2,526      3,744
FIBRA_        ,497       ,493       ,166       ,171       ,822
NARCIS        ,380       ,380       ,070       ,245       ,517

********************** 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

NOTE: A heteroscedasticity consistent standard error and covariance matrix estimator was used.

------ END MATRIX -----
```

Additional Analysis:

1) Design (IV) - Narcissism (Y)

Test t

Statistiche gruppo

	DESIGN	N	Media	Deviazione std.	Errore standard della media
NARCIS	,00	95	3,7421	1,27447	,13076
	1,00	91	4,2115	1,40383	,14716

Test campioni indipendenti

		Test di Levene per l'eguaglianza delle varianze		Test t per l'eguaglianza delle medie							
						Significatività		Differenza della media	Differenza errore std.	Intervallo di confidenza della differenza di 95%	
		F	Sign.	t	gl	P unilaterale	P bilaterale			Inferiore	Superiore
NARCIS	Varianze uguali presunte	1,009	,316	-2,390	184	,009	,018	-,46943	,19645	-,85702	-,08185
	Varianze uguali non presunte			-2,385	180,492	,009	,018	-,46943	,19686	-,85788	-,08099

Dimensioni effetto campioni indipendenti

		Standardizzatore[a]	Stima del punto	Intervallo di confidenza 95%	
				Inferiore	Superiore
NARCIS	D di Cohen	1,33930	-,351	-,640	-,060
	Correzione di Hedges	1,34479	-,349	-,637	-,060
	Delta di Glass	1,40383	-,334	-,625	-,042

a. Il denominatore utilizzato per stimare le dimensioni dell'effetto.
D di Cohen utilizza la deviazione standard raggruppata.
La correzione Hedges utilizza la deviazione standard raggruppata, più un fattore di correzione.
Il delta di Glass utilizza la deviazione standard del campione del gruppo di controllo.

2) Fiber (IV) WTB (Y) PQ (M)

Matrice

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.0 *****************

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

**************************************************************************
Model  : 4
    Y  : WTB_M
    X  : FIBRA_
    M  : PERC_Q

Sample
Size:  186

**************************************************************************
OUTCOME VARIABLE:
 PERC_Q

Model Summary
          R       R-sq        MSE     F(HC4)        df1        df2          p
       ,237       ,056      1,586     11,473      1,000    184,000       ,001

Model
              coeff    se(HC4)          t          p       LLCI       ULCI
constant      4,600       ,147     31,324       ,000      4,310      4,890
FIBRA_         ,611       ,181      3,387       ,001       ,255       ,968

**************************************************************************
OUTCOME VARIABLE:
 WTB_M

Model Summary
          R       R-sq        MSE     F(HC4)        df1        df2          p
       ,856       ,732       ,520    297,856      2,000    183,000       ,000

Model
              coeff    se(HC4)          t          p       LLCI       ULCI
constant       ,484       ,201      2,412       ,017       ,088       ,880
FIBRA_        -,195       ,106     -1,845       ,067      -,404       ,014
PERC_Q         ,932       ,038     24,376       ,000       ,856      1,007
```

```
************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 WTB_M

Model Summary
          R       R-sq        MSE     F(HC4)        df1        df2          p
       ,135       ,018      1,894      3,560      1,000    184,000       ,061

Model
              coeff    se(HC4)          t          p       LLCI       ULCI
constant      4,771       ,155     30,692       ,000      4,464      5,078
FIBRA_         ,375       ,199      1,887       ,061      -,017       ,766

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

Total effect of X on Y
     Effect    se(HC4)          t          p       LLCI       ULCI
       ,375       ,199      1,887       ,061      -,017       ,766

Direct effect of X on Y
     Effect    se(HC4)          t          p       LLCI       ULCI
      -,195       ,106     -1,845       ,067      -,404       ,014

Indirect effect(s) of X on Y:
           Effect     BootSE   BootLLCI   BootULCI
PERC_Q       ,570       ,176       ,236       ,923

*********** BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS ************

OUTCOME VARIABLE:
 PERC_Q

              Coeff   BootMean     BootSE   BootLLCI   BootULCI
constant      4,600      4,601       ,148      4,295      4,882
FIBRA_         ,611       ,610       ,183       ,258       ,978

----------

OUTCOME VARIABLE:
 WTB_M

              Coeff   BootMean     BootSE   BootLLCI   BootULCI
constant       ,484       ,488       ,204       ,097       ,895
FIBRA_        -,195      -,196       ,104      -,402       ,010
PERC_Q         ,932       ,931       ,039       ,851      1,007


********************** 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

NOTE: A heteroscedasticity consistent standard error and covariance matrix estimator was used.

------ END MATRIX -----
```

3) Fiber (IV) PQ (Y) Narcissism (M)

Matrice

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.0 *****************

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

**************************************************************************
Model  : 4
    Y  : PERC_Q
    X  : FIBRA_
    M  : NARCIS

Sample
Size:  186

**************************************************************************
OUTCOME VARIABLE:
 NARCIS

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,1112      ,0124     1,8265     2,3027     1,0000   184,0000      ,1309

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,8308      ,1358    28,2029      ,0000     3,5628     4,0988
FIBRA_        ,3014      ,1986     1,5175      ,1309     -,0905      ,6932

**************************************************************************
OUTCOME VARIABLE:
 PERC_Q

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,4613      ,2128     1,3297    24,7333     2,0000   183,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,1454      ,2674    11,7637      ,0000     2,6178     3,6729
FIBRA_        ,4971      ,1705     2,9151      ,0040      ,1606      ,8335
NARCIS        ,3797      ,0629     6,0369      ,0000      ,2556      ,5038
```

```
************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 PERC_Q

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,2367      ,0560     1,5858    10,9188     1,0000   184,0000      ,0011

Model
             coeff         se          t          p       LLCI       ULCI
constant     4,6000      ,1266    36,3455      ,0000     4,3503     4,8497
FIBRA_        ,6115      ,1851     3,3044      ,0011      ,2464      ,9766

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

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      ,6115      ,1851     3,3044      ,0011      ,2464      ,9766

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      ,4971      ,1705     2,9151      ,0040      ,1606      ,8335

Indirect effect(s) of X on Y:
           Effect     BootSE   BootLLCI   BootULCI
NARCIS      ,1144      ,0816     -,0353      ,2852

************************ 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 -----
```

4) Fiber (IV) PQ (Y) Fit (M)

Matrice

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.0 *****************

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

**************************************************************************
Model  : 4
    Y  : WTB_M
    X  : FIBRA_
    M  : FIT

Sample
Size:  185

**************************************************************************
OUTCOME VARIABLE:
 FIT

Model Summary
          R       R-sq        MSE     F(HC4)        df1        df2          p
       ,341       ,117      2,183     24,521      1,000    183,000       ,000

Model
              coeff    se(HC4)          t          p       LLCI       ULCI
constant      3,640       ,158     23,049       ,000      3,329      3,952
FIBRA_        1,069       ,216      4,952       ,000       ,643      1,496

**************************************************************************
OUTCOME VARIABLE:
 WTB_M

Model Summary
          R       R-sq        MSE     F(HC4)        df1        df2          p
       ,578       ,334      1,293     31,943      2,000    182,000       ,000

Model
              coeff    se(HC4)          t          p       LLCI       ULCI
constant      2,856       ,302      9,471       ,000      2,261      3,451
FIBRA_        -,203       ,168     -1,209       ,228      -,534       ,128
FIT            ,529       ,066      7,984       ,000       ,398       ,660
```

```
************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 WTB_M

Model Summary
          R       R-sq        MSE     F(HC4)        df1        df2          p
       ,131       ,017      1,898      3,318      1,000    183,000       ,070

Model
             coeff    se(HC4)          t          p       LLCI       ULCI
constant     4,782       ,157     30,532       ,000      4,473      5,091
FIBRA_        ,363       ,199      1,822       ,070      -,030       ,757

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

Total effect of X on Y
     Effect    se(HC4)          t          p       LLCI       ULCI
       ,363       ,199      1,822       ,070      -,030       ,757

Direct effect of X on Y
     Effect    se(HC4)          t          p       LLCI       ULCI
      -,203       ,168     -1,209       ,228      -,534       ,128

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
FIT       ,566       ,141       ,315       ,865

************ BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS *************

OUTCOME VARIABLE:
 FIT

             Coeff   BootMean     BootSE   BootLLCI   BootULCI
constant     3,640      3,643       ,159      3,329      3,953
FIBRA_       1,069      1,066       ,215       ,652      1,502

----------

OUTCOME VARIABLE:
 WTB_M

             Coeff   BootMean     BootSE   BootLLCI   BootULCI
constant     2,856      2,857       ,297      2,291      3,471
FIBRA_       -,203      -,203       ,167      -,534       ,117
FIT           ,529       ,529       ,065       ,395       ,657

*********************** 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

NOTE: A heteroscedasticity consistent standard error and covariance matrix estimator was used.

------ END MATRIX -----
```

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SUMMARY

The central theme of this study revolves around innovation in sustainable fashion. Its main objective is to understand and analyze consumers' perceptions towards these green innovations. The present thesis begins with an initial analysis of the existing literature, particularly considering the different perspective regarding the compatibility of luxury and sustainability. These concepts are perceived to be in strong conflict for some aspects while in harmony for others. From one side, luxury has been defined as unnecessary and excessive, and on the other side, luxury has always embraced the essence of high quality (Ko., 2019), durability, craftmanship (Kapferer., 2010) and rarity (Heine., 2012). Sustainability, instead, involves establishing and preserving conditions that facilitate productive coexistence between humans and nature, thereby enabling present and future generations to meet their social, economic needs in a fulfilling manner (Ivan et al., 2016). The question that arose to several scholars is: *are luxury and sustainability compatible?* Following the double facets of luxury, the answer could be contradictory: luxury and sustainability as perfect allies or bitter enemies. The answer is positive when considering the historical and more ancient values of luxury such as craftmanship, high-quality, and durability, while negative when considering luxury as synonym of excess, opulence, and superficiality (Kapferer & Michaut., 2015) showing a lack of interest on ethics and sustainability (Davies et al., 2012). Despite, the inconclusive research and contradictory perspectives on the topic, the necessity of sustainable development in luxury fashion is undisputable after the rise of the "new luxury" which consists in creating more affordable luxury items to supply middle class (Rosendo-Rios & Shukla, 2023) and, consequently, starting to have a relevant impact on production and consumption structure. Hence, criticism has been directed towards luxury fashion companies for their negative impact on biodiversity, as well as their contribution to waste and pollution through their manufacturing processes. This highlights the importance for all luxury fashion brands, particularly the leading ones, of *merging* the concepts of sustainability and innovation (Arribas et al., 2022) in order to remain competitive and retain the attention of customers who are increasingly concerned about such issues and are translating these concerns into pro-environmental behaviors (Yoo, 2021).

From this starting point, *green innovations* have been recognized as one of the key factors affecting environmental and economic success in organizations and communities (Lee & Kim., 2011; Takalo et al., 2021), having a positive impact on consumers who appreciate environmentally friendly production.

The most relevant green innovations identified by the literature are *green technological innovation (GTI), green process innovation (GPRI), green design innovation (GDI) and green product innovation (GPI)* (Burki, 2018). These innovations are being scarcely used by luxury brands, for instance, a GTI is the *3D printing*. This technique offers immense creative possibilities for designers, enabling them to produce more innovative and exciting designs (Yu, 2020; Ikram, 2022). The second green innovation relates to the design. GDI adheres to

the 3Rs principles (reduce, recycle, and reuse) and provides customers with a fundamental assurance of products' quality. An example of GDI in line with luxury brands' core values is the *upcycling* technique. The upcycling is the practice of converting waste materials or useless products into new materials or products of better quality so that, to the products "it's given more value, not less" (Kim, 2014), which seems compatible with luxury. The idea of upcycling provides a chance for designers to take a leading role in addressing the issue of textile waste, while satisfying the constant need of customers for new fashion (Khandual & Pradhan, 2019). The third green innovation analyzed is the GPRI. An example of GPRI is the "Air Dyeing" or "Dry Dyeing" (Kant, 2011) which is a process that uses air instead of water to dye fabrics: uses 95% less water, requires 87% less energy, emits 84% less greenhouse gases and reduces damages to goods. In luxury fashion this innovation could be the best alternative to natural dyeing which guarantees only a limited and dull range of colors. On the contrary, the Air Dying process could allow luxury designers to produce clothing with vivid colors and hues worthy of their collections (Kant, 2011).

The last type of green innovation is green product innovation. A very relevant example of GPI involves the use of renewable resources from nature and then returning them back to nature in a sustainable way (Ahmad et al., 2020).

The topic of this study lies in the green product innovation, more specifically with the use of innovative sustainable fibers for luxury fashion items. Fibers show a tangible connection to some of the most pressing issues of our world such as climate change, waste generation, and water scarcity (Fletcher and Grose, 2012; Muthu and Gardetti, 2016). For instance, luxury brands' most famous and sold items are made of leather (Thomas, 2007) that is produced by modifying the protein structure of animal hides, through a series of physical and chemical treatments. Consequently, it seemed necessary to develop non-animal derived materials that possess similar properties of leather. These innovative fibers are extracted from natural renewable resources such as bastes, seeds, fruit (Muthu & Gardetti, 2016). Examples of these innovative fibers, coming from food waste, are pineapple fiber, orange fiber, mycelium fiber (mushroom), grape and apple fiber.

The pineapple leaf fiber is a well-known vegan fiber obtained from pineapple leaves which would otherwise be discarded. This fiber is considered very strong, creamy, lustrous, and more delicate in texture than any other vegetal fiber. The only brand in the luxury fashion industry that is investing in this innovation is the German fashion house Hugo Boss.

Differently form pineapple fiber, the orange fiber is more widespread: it is the result of a sustainable innovation solution of reusing waste from orange peels, lemons, and grapefruits. A main example is the brand Ferragamo which, in 2017, launched the innovative "Orange Fiber Collection" becoming the first brand to use the exclusive orange fiber fabric.

The last critical example is the Mycelium fiber, a vegetative part of the mushroom consisting in white filaments that can be used to create a leather-like material. This eco-friendly material can be produced without the use of toxic substances and is biodegradable and compostable. The renowned Stella McCartney brand adopted this

new technology called Mylo for its iconic bags, after formed a consortium with Adidas, Lululemon, and Kering Group (D'Itria & Colombi., 2022).

These innovations in fabrics production are transforming the landscape of fashion sustainability.

However, for many reasons, luxury fashion companies still face difficulties in incorporating these sustainable materials into their designs. First and foremost, sustainable materials are more costly than conventional fabrics. Second, the use of these fabrics is limited because of the lower availability compared to traditional ones (Gam & Banning, 2011) and finally, there is still little research examining whether consumers will be accepting these materials. Several studies confirm that consumers education and awareness about these topics is still limited and, this lack of awareness could be an obstacle to the development and diffusion of green products made of innovative fibers. Beyond the unfamiliarity of consumers, many authors investigated the perception of customers towards products made of recycled and reused materials. The feeling that emerges is *contamination* and *disgust* (Meng & Leary, 2021), leading to a reduction in purchase intentions (Underhill, 2000; Meng & Leary, 2021). However, these feelings of disgust and contamination have been verified on generic fashion customers, hence may be not valid for luxury customers, since they associate luxury brands to prestige and premium quality, opposite concepts from contamination and disgust. As evidence, according to Hartmann and Apaolaza-Ibáñez (2012), the acceptance of these innovative fibers could be encouraged by brand image and high- quality, offering experiential and symbolic benefits more than functional ones, which is a typical strategy of luxury brands. Perceived product quality has a direct effect on willingness to purchase green products (Tseng & Hung, 2013; Nam et al., 2017), therefore, we could hint that green fashion innovations could be more accepted if implemented by luxury brands than by non-luxury ones.

Hence, the aim of this study is to understand which factors could enhance customers' willingness to buy and perceived quality of these green products. Three relevant potential drivers of customers' willingness to buy green products innovations will be deeply analyzed: Products' *design aesthetic*, consumers' *narcissism,* and *environmental concern.*

The first driver analyzed is the design. Several researchers have emphasized the significance of design and its impact on purchase intention and customer satisfaction, highlighting the essential role that design plays in shaping consumers' perceptions and action towards a product or brand (Homburg et al., 2015; Sabir, 2020; Gilal et al., 2022). However, sustainable apparel is frequently perceived as unfashionable or unstylish by consumers (Rausch & Kopplin, 2021; Connell, 2010) who relates it to the stereotype associated to the 1970's "eco-look" which was made of rough fabrics and was considered of bad taste (Eifler and Diekamp, 2013). Despite the evolution of customers perceptions during time, this stereotype seems to be still alive.

However, according to Vehmas et al. (2018), customers value the concept of creating new clothing items from innovative resources and believe that circular products should become "the new normal" but, they emphasize the importance of ensuring that circular garments are comparable, in quality and appearance, to those made from traditional fibers, expressing the desire for these collections to be stylish and on par with the classic items. The brand Chanel is a fitting example showing that the real innovation should be connected to the use

of new fabrics, new techniques rather than to the mutation of design aesthetic (Finn, 2011) that, in its case has remained intact since 1930s.

Further evidence is found in the study of De Angelis et al. (2017) who demonstrates the impact of design similarity when introducing a new green product. More specifically, when the new green product design resembles the previous, classic models of the brand, customers' brand attitude and purchase intention, towards green products, increase. To facilitate the mainstream adoption of sustainable clothing, it is imperative to normalize its design (Harris et al., 2016). This strategy can help to overcome existing stigma and stereotypes that hinder its widespread uptake and integration into the fashion industry. A fitting example in line with this assumption is the brand Gucci with the "Off the Grid" collection [14], a line of products made of recycled, regenerated, organic and sustainable materials that stay true to the iconic Gucci design aesthetic. Among the collection's offerings are revamped versions of Gucci's classic 1977 tennis sneakers, instantly recognizable models of the Italian fashion house (Fig.7).

Knowing the importance of design aesthetic in customer decision journey, luxury fashion brands like Gucci, do not want to make ethical choices if this necessitates inconvenience to them (Niinimäki, 2010). The second analyzed driver is *narcissism.* Narcissism is the personal inclination towards an unwarranted and exaggerated sense of self-importance (Lee et al., 2013; Fastoso et al., 2018) which is being recognized as a significant predictor of consumer behavior (Twenge & Campbell, 2008). Individuals with narcissistic tendencies display a heightened attraction towards the symbolic aspects of products, prioritizing them over their utilitarian benefits, in order to gain admiration from others (Lee et al., 2013; Fastoso et al., 2018): typical of luxury consumption. This narcissism could be the reason *why* luxury customers prefer traditional, classic, iconic design aesthetic, instead of an unconventional design for luxury sustainable products. Studies indicate that individuals with narcissistic traits exhibit a reluctance to participate in environmentally responsible actions (Naderi & Strutton, 2014, 2015). Nevertheless, when eco-friendly products serve as a status symbol, such as luxurious items, individuals with elevated levels of narcissism may be more inclined to adopt environmentally friendly behaviors.

Moreover, individuals with narcissistic traits are attracted to the exclusivity and scarcity of products which make them feel unique, signaling wealth and social superiority (Kim & Lee, 2015). When a product is scarce, it is less likely to be bought, which make consumers view it as more valuable and special (Tian et al., 2001; Steinhart et al., 2014). Sustainable luxury products made of innovative fibers are produced and supplied by only a very limited number of designers therefore, luxury buyers, who seem to be characterized by narcissistic traits, could be strongly attracted by this kind of products for their scarcity and exclusiveness.

In other words, by maintaining scarcity value, luxury brands aim to satisfy luxury consumers' needs for distinctiveness and self-differentiation (Park et al., 2008; Rosendo & Shukla, 2023).

The last analyzed driver analyzed is the environmental concern. The environmental concern is defined as "the degree to which people are aware of environmental problems and support efforts to solve them and/or indicate a willingness to contribute personally to their solution" (Dunlap, & Jones, 2002). Empirical evidence show that the environmental concern plays a central role also in fashion consumption. More specifically, considering the significant environmental impact of the fashion industry, it has been demonstrated that the more consumers are conscious and concerned about the human health and environment protection, the higher their consumption of ethical fashion will be (Yoo, 2021). Hence, this study also investigated the level of environmental concern of an Italian sample aiming to understand its impact on the dissemination of these innovative sustainable fibers.

Research Gap and Hypotheses Test

These new fibers are derived from sustainable, organic sources such as fruit pulp (Muthu and Gardetti, 2016), presenting the opportunity to tackle the ecologically harmful reliance on conventional fibers (Stenton et al., 2021). Based on previous research and, on the analysis of luxury, we believe that the use of sustainable fibers could "fit" more the luxury world than recycled ones and, consequently, be more appreciated by consumers. Luxury fashion buyers seek high quality and exclusivity in luxury brands collections (Joy et al., 2012) (Vehmas et al., 2018) hence, we believe that there is a higher compatibility between luxury fashion and these alternative materials compared to the recycled ones. This empirical study will utilize *wine leather* as innovative fiber since the traditional leather, which requires a very harmful process, is one of the most used materials in luxury fashion items' production (Thomas, 2007). Therefore, it seems necessary to investigate consumer's perceptions towards an alternative solution to traditional leather in order to address and eliminate this harmful practice.

H1a: The *willingness to buy* of consumers is higher for the luxury item made of *wine leather* than for the luxury item made of recycled fibers.

H1b: The *perceived quality* of consumers is higher for the luxury item made of wine leather than for the luxury item made of recycled fibers.

Moreover, the current study will emphasize the significance of *design aesthetics* in promoting and enhancing the adoption of alternative fibers in luxury fashion collections.

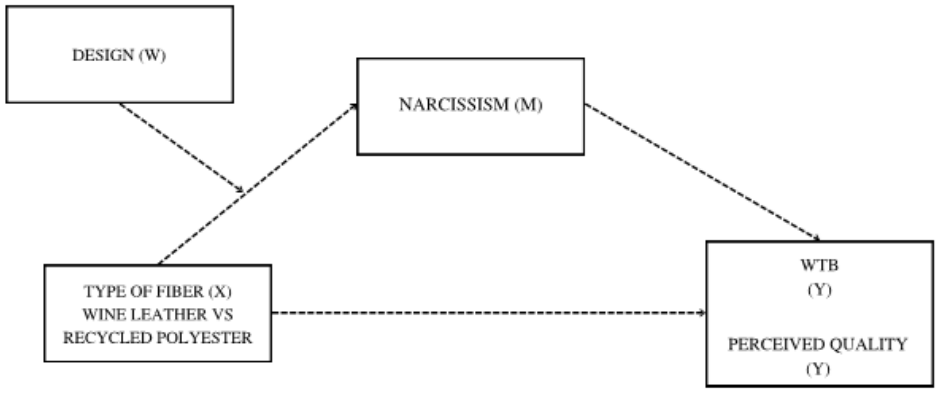
H2a: The design (W) moderates the relation between the presence of innovative fiber wine leather and the willingness to buy. More specifically, when a fashion item made of wine leather resembles the traditional design aesthetic of the brand, consumers' WTB further increases.

H2b: The design (W) moderates the relation between the presence of innovative fiber wine leather and the perceived quality. More specifically, when a fashion item made of wine leather resembles the traditional design aesthetic of the brand, consumers' WTB further increases.

Moreover, the present study aims to investigate *why* consumers could be more likely to purchase luxury products made of innovative fibers. To do so, typical personality traits of luxury customers have been analyzed, finding out from several studies that they are characterized by narcissistic traits (Fastoso et al., 2018). Therefore, if sustainable luxury products made of innovative fibers incorporate the traditional and iconic design of the brand, they could be more readily accepted by consumers as it nurtures the narcissistic traits associated with the search for status and esteem.

H3a: The design (W) influences the *indirect effect* between the type of fiber (X) and the WTB (Y) mediated by the narcissism (M)

H3b: The design (W) influences the *indirect effect* between the type of fiber (X) and the perceived quality (Y) mediated by the narcissism (M).



To test these hypotheses, an experimental study has been conducted, specifically a 2x2 between-subjects design. A survey, created on Qualtrics, has been delivered, through a convenience method, to 238 individuals but, only 186 where valid answers since the rest did not complete the study. The sample was composed by 120 females, 65 males and 1 non-binary with a median age of approximately 26. The survey was composed by 19 questions (15 technical and 4 demographics).

The individuals were presented with manipulated and randomized scenarios. Specifically, the four conditions included the presence of two different sustainable fibers (wine leather derived from grape and recycled

polyester derived from plastic bottle) and a design that was either similar or different to the brand's previous items. The following questions measured the willingness to buy (WTB) of the individuals, the perceived quality (PQ), the disgust index, the perceived fit, narcissism, need for uniqueness (NFU), environmental concern (EC), attitude towards the product (ATP). All these variables were measured by pre-validated scales (Sweeney & Soutar, 2001; Bruner, I., & Handbook, 2009; Tabbane & Hamouda, 2013; Argo & Morales, 2006; Brown & Zeigler-Hill, 2004; Workman & Kidd, 2000; Simmons & Becker-Olsen, 2006; Johnson & Russo, 1984; Roberts & Bacon, 1997). After collecting all the necessary responses, the data was exported from Qualtrics in order to be further analyzed in SPSS.

To validate the stimuli used in the study, a manipulation check was conducted to test whether the textual scenarios were perceived correctly by the individuals. More specifically, the manipulation check was executed for the perceived fiber, the perceived design, the perceived luxury, and the perceived innovativeness. Four independent sample t-test were conducted. The first test showed that there was a statistically significant difference between the perceived fiber wine leather and recycled polyester. In the same way, the subjects who were exposed to a similar design (1) registered a mean equal to 3.582 while, the individuals exposed to a different design (0) registered a mean equal to 5.617. This difference resulted statistically significant as the p value is < 0.05. Also, for the perceived innovativeness, the t-test has demonstrated how, for the sample, the wine leather is *more innovative* than the recycled polyester.

The last manipulation check concerned the perceived luxury. The brand presented in all the four conditions was a luxury brand. Consequently, we expected no difference in the respondents' answers to the question "is the previously described brand a mass or luxury brand?". As anticipated, the brand was perceived as luxury by the sample, and therefore there is no significant difference in the means (p-value > 0.025).

After the manipulation check, the hypotheses test was conducted. In order to test H1 an independent sample t-test was conducted using as IV the Fiber (0,1) being a dichotomous variable and WTB as dependent variable (Y) being a measured one.

The results confirm H1, showing that the WTB mean of the subjects who saw the scenario containing the wine leather (1) is significantly higher than the WTB mean of the individuals who read about the recycled polyester (0). Thus, the main effect is considered statistically significant, therefore confirming H1. The presence of the wine leather *increases* consumers' WTB. The same test has been executed considering the perceived quality as dependent variable, confirming also H1b, demonstrating a higher average PQ in presence of the innovative fiber wine leather.

To test H2, the first step to conduct is to verify the effect between the Design (W) and the dependent variable WTB. This cause-effect relation is statistically significant since in presence of a similar design the WTB mean becomes higher than in presence of a different design from the previous models of the brand. The second analysis made was a two-way ANOVA to verify the *moderation* effect which presented a non-statistically significant *interaction effect* between FIBER*DESIGN. Therefore, based on the results obtained it was not

possible to confirm H2, which means that the moderation effect between the type of fiber (IV) and the type of design (W) cannot be confirmed.

The same moderation was tested with a different Y, perceived quality. The results show a statistically significant main effect between the type of fiber and the perceived quality, meaning that in presence of wine leather, the perceived quality increase. However, both the second main effect and the interaction effect were not statistically significant.

Subsequently the third hypothesis has been tested. To test the relation between the type of fiber, the design, the narcissism and the WTB (H3) a model 7 on Process has been executed. This moderated mediation is aimed to examine whether the effects of fiber type on WTB were indirectly influenced by narcissism traits and whether the interaction between the design and fiber type had an impact on the results. The results do not confirm the third hypothesis stated. The same analysis was conducted considering PQ as dependent variable. Moreover, when the outcome variable is PQ, there is statistically significant impact of the type of fiber (IV) and narcissism (M) on PQ (Y). The results do not confirm the hypothesis stated since, the index of moderated mediation reports the confidence interval which contains the 0.

Environmental concern, *frequency of consumption* and the *disgust index* were chosen as control variables. The inclusion of covariates in the moderated mediation analysis has been useful to understand if there are additional factors that may have influenced the results, leading to a more accurate estimation of the effects.

In order to understand the lack of significance of the moderated mediation (H3), to the model were added the covariates *disgust index, environmental concern* and *frequency of consumption.*

Results indicate that: the EC does not influence the consumers' narcissism. However, there is a positive impact of *consumption frequency* of luxury fashion items on the narcissism. More specifically, a higher frequency of consumption of luxury items leads to a higher level of narcissism. A high level of disgust negatively impacts narcissism traits of consumers. These covariates have a significant influence on the outcome variable and, it could be argued that a sample comprised entirely of luxury buyers could have contributed to the significance of the model.

In other words, if the sample exclusively consisted in luxury buyers, there might be a greater level of consistency in preferences and purchasing behavior within the group. This, in turn, could have led to a stronger relation between the type of fiber, the narcissism and the WTB.

Subsequently, additional analysis were conducted with the aim of finding possible interesting relations among the variables contained in the research study.

The first analysis made considers a simple cause-effect relation between the design and the narcissism, showing that there is statistically significant impact of design on narcissism which means that in presence of a similar design, consumers will feed their narcissism.

The second interesting analysis made, concerns the variable perceived quality which has been investigated as mediator between the relation of the type of fiber (IV) and the WTB (Y). An *indirect effect* is demonstrated

which means that the relation between the type of fiber and the WTB is *indirectly* explained by *perceived quality*.

The third additional analysis considers the variable *narcissism (M)* as mediator between the type of fiber (IV) and the perceived quality. The results show a *total* and direct effect of X on Y which means that the narcissistic traits of consumers do not mediate the relation.

A last analysis has been made considering the *perceived fit* variable. A mediation model has been executed considering as IV the type of fiber and the WTB as dependent variable. The results show that the *indirect effect* of the type of fiber (X) on WTB (Y), through the mediator fit, is statistically significant (p-value < 0.0001). This suggests that the relation between the type of fiber and WTB is mediated by consumers' perceived fit.

Implications

In the current fashion landscape sustainability is becoming increasingly central and indispensable with consumers showing more attention and interest in green innovations that can reduce environmental impact. The aim of this study is to provide interesting contributions to the existing literature but also to the luxury brands.

Established brands like Hermès, Chanel, Dior feed themselves with the values of uniqueness, quality and rarity. Hence, they could implement green product innovations without compromising their identity since, as the research revealed, the use of innovative sustainable fiber triggers a higher willingness to buy compared to the recycled ones. More specifically, the use of innovative materials, like wine leather, could make the difference in the pursuit of a green change since a luxury brand must maintain its iconicity, durability and heritage and, the use of these fibers could be a valuable tool to be both green and timeless. Moreover, the research study suggests that luxury brand, aiming to embark on a path of eco-sustainability, can leverage two precious elements: *design* and consumers' *narcissism*. Maintaining their iconic style and unique design, in line with the previous collections, can work in favor of green product consumption. If consumers perceive that the product represents the brand's identity, its history, even if it is green, it will be appreciated, and probability purchased. The explanation lies in the role of design that has the power to *nourish* the typical sense of *narcissism* and aspiration of luxury buyers.

To conclude, the present study provides some insight related to the perceived quality. The more luxury brands will work to *disprove* the concept by which quality is linked to materials such as particular skin and fine fibers (i.e., crocodile leather by Hermès brand), the more it will be possible to increase the willingness to buy products made of alternative renewable fibers. In light of these findings, luxury brands could have the power to effectively change the rules and make a difference in terms of eco-sustainability, since they enjoy the advantage of being *symbols* more than function. This advantage can be leveraged in favor of the environment and the limited resources around it.