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# Luxury Purchases: The Effect of Sustainable Cues on Consumers' Guilt Reduction and The Mediating Role of Product Durability Evaluation.

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*To my Father.*

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## INTRODUCTION

In nowadays' society, sustainability, along with sustainable consumption, are thought to be the major future challenge, and most of brands within retail industry are shifting towards environmentally-friendly conducts. This objective encompasses diverse and variegate actions, which move from the implementation of new operational and logistic processes to the introduction of recently-acquired knowledge on materials and production, mixed with the master experience gathered from previous procedures.

Having now been broadly and universally known that the fashion field is seriously involved in climate change, as it is extremely polluting – with its huge carbon emissions and its unsuitable and inappropriate disposals –, it is evident that, thus far, the luxury world is the pioneer in addressing this issue. Namely, the gap between fast fashion and the contrasting slow fashion, which definitely includes luxury brands, is becoming unbridgeable, certainly due to the differences in the economic means each industry has, and also the speed reaction shown in facing and overcoming difficulties. Actually, though luxury world is distinctly concerned in correctly handling this unbearable situation, consumers still disclose a high degree of myopia, especially during the purchasing phase.

As a result, this thesis' purpose is to ideally translate this “wrong” decision-making into conscious actions in favour of sustainability, so as to introduce and establish a fresh pattern within the customer journey, by addressing all the topics consumers either fail to consider or avoid thinking of when making a purchase, as well as the outcomes deriving from the set choice.

While extant research often examines luxury sustainability under the light of both sustainable consumption and conscious purchasing, with special regards to the intrinsic value of social acceptance and congruence theory, this study proposes an immersive and new perspective on the topic, by mostly focusing on the post-purchase behaviours where consumers engage in. Though most consumers prefer buying more low-end products, instead of investing their budget in fewer high-end ones, luxury products are still considered as a vice, rather than a long-term investment. Therefore, niche-segment consumers advocating the willingness to buy high-end products consequently result in having a major propensity in becoming involved in sustainable behaviours, by either enhancing luxury items' characteristics of product durability (e.g., selling the product at stake as a second-hand product), or, alternatively, by ensuring an environmentally friendly disposal, respecting the products' longer life span.

For this reason, this thesis assesses whether the presence (vs. the absence) of sustainable cues on luxury products could have an influence on consumers' feelings within the post-purchase stage of their journey, especially evaluating whether these could impact on their sense of guilt, and its consequent reduction. Specifically, it has been theorized that the presence of sustainable

characteristics could result in higher reduction in buyers' sense of guilt. Having been adapted from Sun et al. (2021)'s future directions, these two variables are set to measure the so-called "functional alibi" (Keinan et al., 2016) which moves from the willingness to search for a cause in consumers' sense of immorality, guilt and frivolousness deriving from their luxurious purchase. In particular, the functional alibi examines whether adding a utilitarian feature to a hedonic product could efficiently reduce these unacceptable feelings. In particular, by studying this cause-effect relationship, the paper at stake analyses both the purchase and the post-purchase stage within customer journey, as the presence of sustainable cues are related to the buying phase, whereas their impact and influence on reduction in sense of guilt regard the feelings subsequently after the purchase.

Furthermore, this study proposes to analyse the role of product durability, with special regards to its evaluation by customers, as it is generally thought and perceived that luxury products are longer-lasting, in comparison to low-end and utilitarian products, though consumers fail to take this characteristic into account during their decision-making habits. This unconscious process, which could be referred to as "product durability neglect" (Sun et al, 2021) is linked to the attribute of salience, and particularly affects luxury consumption. For this reason, it has been proposed that a different and more sensitive evaluation of product durability – within luxury items – could be a direct consequence of having placed sustainable cues on the product itself and, respectively, a better and higher consideration of durability could then influence consumers' sense of guilt.

This third-party item, which is, instead, specifically related to the purchase phase, adds, in a sense, a completer and more immersive look on the topic: having proposed this variable as a mediator of the cause-effect direct effect, the investigation on the creation of a functional alibi is then again taken into account.

Though the alibi here considered could be seen as more "sustainable", rather than a "functional" one – as the addition of features is, in this case, not related to utilitarian features but to sustainability characteristics – it should be evaluated as a macro framework, a universal set which comprehends in its nucleus the three variables examined. In fact, all the items inevitably lead to a new way of interpreting this revolutionary concept. In first place, adding sustainable cues on product resembles adding utilitarian features to it, by always considering the same background of hedonic consumption. Secondly, increasing the evaluation of product durability is strictly connected to consumers' "myopia" in considering the long-lasting value of luxury products and, in the end, the plausible reduction of the sense of guilt is linked to the biased conviction that buying luxury equals buying a vice which is not worth the afterwards psychological downsides.

In particular, the structure of the thesis will follow a linear flow, beginning with a deep dive into the literature related to the topic, along with the reasons behind the choice of the selected variables. Specifically, the review that has been done is strictly related to both the world of retail, where this framework perfectly fits in – as it is connected to the act of purchasing itself, as well as the juxtaposition within utilitarian and luxurious consumption – and to psychology, along with all the emotional sphere that results from decision making.

The first chapter will be then dedicated to articles and literature regarding consumers' research, so as to have a macro lens through which interpret the proposed framework. This review will be accompanied by a complete theoretical background, in order to discover the connections that will guarantee the outcome of the empirical analysis. Going into details, the literature will focus both on the macro argument of luxury sustainability within the world of fashion and retail, and, more specifically, on the above-mentioned topics (such as, for instance, the role of guilt in choice justification), by proposing a mix-and-matched approach which will consider high-quality journals from multiple fields - from those related to marketing to those on sociality. By directing a profound and ground-laying review of existing theses, the objective is to set a strong basis for the construction of the theoretical framework, as well to provide the reader with a 360-degree immersion into the *ratio* of the thesis.

The second chapter will follow the step-by-step creation and development of the proposed conceptual framework, by firstly beginning with the complete explanation of the research question, then analysing the variables chosen, as well as the effect each variable is set to have on the adjacent one. In this case, not only the direct relationship of cause-effect will be explained, between the independent and the dependent variable, but also the mediating effect, as to better comprehend the relation within the X and Y variables. The mediator will therefore display why the two principal variables are connected, by adding some information which will help identifying the links between the items. The investigation will further continue with the hypotheses' development, which will be the basis on which all the empirical analysis will be done.

The third chapter will illustrate the test done to study the framework. The thesis proposes a Main Study, which is the nucleus of the thesis, measuring the effectiveness of the framework. The methodology used is based on the usage of the Qualtrics platform and the consequent analysis through IBM's SPSS program, where all the data deriving from the survey has been exported. Therefore, this chapter will begin with the methodology employed in the study, along with a description of both the sampling procedures and the design of the research. Strictly connected to this part is the one dedicated to the analysis of the results, as it will mainly display all the findings deriving from the studies, proving a grounded analysis done with SPSS. The main findings will be then accompanied by a

substantial appendix, which will contain all the graphs and tables resulting from the SPSS outcome, so as to guarantee a coherent reading. The stated appendix will be placed at the end of the thesis. The results will be analysed in light of the methodology previously explained, as well as the hypotheses developed, and will comprehend a first reliability analysis, followed by two test analyses and data analysis related to PROCESS model.

The fourth and final chapter will be dedicated to a general discussion, based on the findings of the study. In particular, the argumentation will firstly begin with the theoretical contributions, followed by the managerial implications deriving from the thesis. Therefore, the focus will be shifted on the plausible limitations of the paper, as well as providing the readers with directions for further and future research.



## CHAPTER 1: LITERATURE REVIEW

Moving on to the literature review, it is first and foremost necessary to highlight that this chapter will follow a general-to-specific flow, which will – at the beginning – focus on more generic topics, so as to give a broad and widespread background to the reader, then shifting to a complete explanation of the variables selected. For this reason, the first paragraph will cover both sustainability and sustainable consumption, and then introduce the world of fashion in the second one, along with practices into place within luxury industry. The third paragraph will be mostly dedicated to the effects of sustainable actions and environmental concerns on the psychological sphere of the consumer and on their purchase intentions. The following subparagraph will then consider a more specific section on the triangled framework proposed, by focusing on previous research which has guided the selection of the items.

This approach is set to guarantee a complete overview of the reasons behind the choice of the argumentations of the thesis.

### **1.1 Sustainability**

#### *1.1.1 History of Sustainability*

As mentioned before, sustainability is thought to be the biggest future challenge, and though its principles theoretically seem to be extremely easy to implement within any industry, as they could be universally stuck to any field, the reality is that, in practice, the majority of companies struggle to comply with its applications, by trying to transform its concepts into operational meanings (Pellizzoni, 2012). For this reason, embracing sustainability means embracing its multilaterality and tridimensionality. As per the Brundtland Report (1987), sustainability is juxtaposition of three different dimensions, namely economic, political and social, which, together, contribute to give this concept a more universal meaning. In particular, the Brundtland Report, along with the contributions of the MIT researchers' and Club of Rome's "Limits to growth" (Meadows et al., 1972) and the Stockholm UN Conference of the same year, are considered to be the first examples in which sustainability was not only theorized, but practically imagined. Specifically, MIT's focus was to give a stable background to the above-mentioned three-dimension model, by founding its roots on "system dynamics theory", which was, in turn, consequently connected to Neo-Malthusian catastrophism

(Schoijjet, 1999). The report's main goal was to effectively elaborate and practically evaluate the plausible environmental aftereffects of 12 Scenarios presented through World3, a computer-based model able to simulate the aforementioned outcomes along two centuries – from 1900 to the future 2100 (Bishop, 2006). According to Lippert (2004), the Club of Rome wanted to promote “accelerating change in consciousness”, regarding sustainability, and it evoked the same resonating effect occurred ten years before, with the publication of *Silent Spring* (Carson, 1962). Having been described as an event, rather than a simple publication, as it has covered the same scope and conveyed the same sense of awareness *The Other America* (Harrington, 1962) had raised for the previous decade (Saunders, 1974).

Though it was extremely innovative, and it was built upon the interaction, thus the integration, of the economic, political and social aspects of sustainability, and therefore accompanied by a profound awareness broadcasting, also guaranteed by the Stockholm Conference, this paper by the Club of Rome was neither correctly acknowledged, nor properly welcomed by the scientific community of that time. In particular, it was heavily criticized by those who were close to Marxism, and, therefore, to the so-called bureaucratic collectivism (Draper and Gallin, 1966). In contrast, the intrinsic aim of this study was to illuminate and educate the reader to disclose all the limits of a sincere and universal *development*, by providing them with the tools to surpass and uncover the plausible boundaries that the proposed model had, as to unveil all the obstacles that hindered and enclosed its actual application (Meadows et al., 1972).

Nonetheless, this paper has thrown the basis of the modern perspective on environmental concerns and sustainability, fields in which both scientific research and governmental policies have certainly made a great progress, with special focus on a deep development along the aforementioned characteristics. In fact, for what regards sustainability, its meaning and breadth has been widely broadened, as it now conveys a strong sense of “intergenerational equity” (Padilla, 2002), which could be easily translated in the willingness to ensure that next generations will be granted a bright and great future.

Specifically, as previously defined by the Stockholm declaration of 1972, and subsequently confirmed and enlarged two decades later, by the Rio de Janeiro Declaration on Environment and Development (UNCED) of 1992, intergenerational equity is one of the main concepts of the so-called “Agenda 21”. This 26-principles document was thought to be the practical tool and instrument with which translate into action the theories and comments elaborated during the Conference, and it was all built around the concept of intergenerational equity, intended as the right for all humans to access to natural resources and responsibility towards future generations (Silvestri, 2015). According to Silvestri (2015), citing Zupi (2014) “Our generations need to establish the ethical imperative of

maintaining and increasing natural resources (with the reduction of waste and consumption), as to deliver to future and upcoming generations a world with at least the same potentialities as it was delivered to us. [...] it is not about environment in its literal sense, but the environmental quality, as a precondition for the satisfaction of the wellbeing of people, [...] the focus is therefore shifted from needs to resources, and on how to make a conscious use of them, without compromising the future one.”<sup>1</sup>.

As stated by Bertocchi (2004), the debate on this concept has been widely broadcasted during the '80s, especially in the US, as a response to the socio-demographic transformations that the Nation was facing. In particular, this tendency was not simply related and circumscribed to a single country. According to Attias-Donfut (2000) and her critical analysis on the so-called “intergenerational contract”, the issue at stake is based on the shifts occurred within the life quality of the elderly people. In fact, the great improvement in their living standards, with special regards to the increase of public resources to be dedicated to them, has subsequently caused a decrease in those accounted for the young, whose living standard is subject to a threatening subcategorization. For this reason, the author states that “the continuative prosecution of this trend, which will have as a main consequence the reduction of the resources for young people, will be therefore unrighteous. Social inequality is not displayed in between social classes but is now related to adjacent generations”. In this way, the basis of the modern social welfare is leftover: this disequilibrium mines the two pillars of the generational contract, thus the *gerosocial succession* and the geriatrics dependencies – respectively, the natural consecution of generations and the protection of the elderly (Bengtson, 1993).

Sustainability, and its multilaterality, are then again mentioned within the WSSD of Johannesburg. The World Summit on Sustainable Development had as major aim the effective implementation of Agenda 21 (Hens and Nath, 2003), and it was structured along three main lines. First, the “Johannesburg Declaration on Sustainable Development”, thought as a political manifesto, “mirroring the will of the international community to move towards sustainable development” (Hans and Nath, 2003), followed by the “Johannesburg Plan of Implementation” – on, indeed, the actions to take to ensure the practical enactment of Agenda 21, and, as last, “Type II Partnerships”, which was the true innovation of this summit.

This document was aiming at determining effective and efficient partnerships and country participations within the matter of global governance – the s.c. “partnership strategy” pursuing “boundary-spanning dialogue” (Eweje, 2006), though it was mostly perceived as a failure. According to Andonova and Levy (2003), five were the causes of non-effective-governance outcomes: firstly, the rationale for partnerships was underspecified – causing ineffectiveness over time; secondly, the

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<sup>1</sup> Self-elaborated translation from Italian.

benefits of using WSSD as a tool to develop useful partnerships was poorly articulated; and thirdly, the partnerships proposed were mainly supply-driven instead of being imagined as demand-driven. In particular, for what regards this last point, “the promise of relying on partnerships to support a transition to ‘outcome-based’ decision making will fall flat unless a mechanism can be found to steer the partnership activity in a more demand-driven direction” (Andonova and Levy, 2003). Furthermore, moving to the last two causes, the authors address the uneven participation in the WSSD – thus having visibly reflected this unevenness also in those partnerships, and the quest for an effective follow-up of the plausible outcomes of this tool.

Critics to the effectiveness of the partnerships have come from multiple sources, especially within sight of PrepCom IV held in Bali. Specifically, attention was focused on four themes (La Viña et al., 2003), which could all be related to non-productive actions, thus diverting the implementation of the plan towards more greenwashing practices and intergovernmental non-commitment, rather than feasible, concrete and credible efforts.

### *1.1.2 Sustainable Consumption*

Sustainability could be therefore reported to these mentioned documents, which, in turn, both constitute the basis of the modern meaning of this concept and provide reference to further expand and broadcast future research on the matter. In this sense, as mentioned before, sustainability is thought to be the most dynamic challenge to be accepted and embraced in companies, which is often disclosed to these realities as a strong competitive advantage. For this reason, achieving and aiming at the so-called “sustainable competitive advantage” (often referred to as SCA), is the key to the company’s long-term success, defined as “the prolonged benefit of implementing some unique value-creating strategy not simultaneously being implemented by any current or potential competitors along with the inability to duplicate the benefits of this strategy” (Barney, 1991).

Though it is not a common denominator within all firms, literature agrees that it could derive from multiple sources. For instance, as provided by Day and Wensley (1988), the sustainable competitive advantage is a conjunction and juxtaposition within superior resources and superior skills, whereas Barney (1991) affirms it is based on mainly four characteristics – rareness, value, inability to be imitated and inability to be substituted. In reality, as stated by Hoffmann (2000), “firms may succeed in establishing a SCA by combining skills and resources in unique and enduring ways. By combining resources in this manner, firms can focus on collectively learning how to coordinate all employees’ efforts in order to facilitate growth of specific core competencies”.

Previous research has also examined that there is a strong correlation within SCA and sustainable consumption. In particular, the conceptual framework proposed by Kamboj and Rahman (2017), sustainable consumption mediates the relationship between sustainable innovation and competitive advantage. With regards to this, within the field of organisational learning, which is, indeed, how organisations learn from direct and indirect experience (Levitt and March, 1988), green innovations are the main channels with which achieve a solid competitive advantage (Tu and Wu, 2020). Specifically, following this approach, sustainable consumption could be easily introduced within green innovations, and, by adopting a knowledge-based view, organisational learning could have an effective role when aiming at successful competitive advantage, as its activities, which constitute the microlevel of action, play in total synergy with the macrolevel of green innovations.

For this reason, acts of consumption are thought to be *macro processes* themselves (Dolan, 2002), and sustainable consumption – along with sustainable production – needs to be uptaken and managed with proficiency, in a specific industrial policy action plan, involving three main areas of priority – which are, in turn, smarter consumption, leaner production and global action (Nash, 2009). As just stated, a wiser, more conscious and acknowledged consumption – thus sustainable -, together with sustainable production, are the main factors which contribute to the creation of a sustainable development.

Sustainable consumption could be then analysed under two different approaches, a consumer-based one, which mainly investigates behaviours' patterns within consumption (Tanner, 2003), and a policy-based one, focused on the promotion of a so-called environmental governance throughout the relationship in between marketers and consumers (Wang, 2017). As stated by Haider et al. (2022), there are four main fields in sustainable consumption research, each conveying different, tridyadic and interdependent levels of analysis – *micro*, *meso* and *macro* levels – which aim at better understanding consumption practices.

Micro-level SCR (namely, *sustainable consumption research*) focuses on individuals, and implies a shift in consumption practices starting from the demand side, as it is considered to be the “primary driver of sustainability”. According to this analysis, and following what affirmed by Lorek and Fuchs (2013), this change could be set with the help of *weak* and *strong sustainable consumption*: the first one translates consumer demand into environmental and productive efficiency, whereas the second one aims at lowering and decreasing the demand in order to achieve sustainability. In addition, given an extensive literature review on the topic, Haider affirms that this level involves 7 different drivers of action - responsible, green, ethical, mindful and anti-consumption, sharing and sufficiency – which all convey a strong awareness and consciousness on the matter.

Meso-level, as opposed to the first one, focuses on the connection within micro-level individuals and macro governing entities (Serpa et al., 2019), mainly identified in business organisations and consumption social practices, as to disclose the patterns which lead to a more sustainable consumption. For this reason, “sustainability at the meso-level will have a direct effect on both the micro and macro levels”.

The last and final level, macro-level, is constituted by all those factors – social, political, economic, etc. – which contribute to the so-called “dominant social paradigm” (DSP) of consumption. Specifically, DSP has been widely examined: for instance, Dunlap and D. Van Liere (1984) consider it as the commitment to our society’s dominant values and beliefs; for Kilbourne et al. (1997) it is the link within sustainable consumption and quality of life; Smith (1999) compares it to the hegemony of productivism. Within the macro-level, a renewed DSP structure is theorized, as to make consumers “ecological citizens” (Seyfang, 2009), who engage in becoming “agents of change” (Spaargaren and Oosterveer, 2010) for the promotion of sustainable consumption.

Within these patterns of individual (micro), social (meso) and cultural-political (macro) practices, it is fundamental to highlight the fact that marketers – thus, more specifically, retailers – do play the foremost role in guaranteeing the implementation of this behaviour. According to Balan (2021), not only retailers do have the possibility to enforce 7 different types of marketing interventions, but they could also leverage on 30 different marketing actions to ensure the engagement in sustainable consumption. In fact, retailers are the main subjects with whom consumers do actually have a practical and concrete interaction, as their relationship is developed throughout extensive customer journeys. Along several and versatile touchpoints within the customer journey (Herhausen et al., 2019), marketers also mostly contribute to consumers’ general level of awareness regarding sustainability (Galbreth and Ghosh, 2012), thus determining responsible and conscious consumer behaviours with sustainability-focused value orientation (Buerke et al., 2017). In addition, Balan (2021) affirms that retailers could intervene in guaranteeing different forms of customer engagement, which encompass several actions, such as the aforementioned consumer awareness, the creation of a “green consciousness”, the increase in consumer responsibility and a profound shift in consumers’ attitude towards sustainable practices.

Indeed, sustainable consumption needs to be thought as a “social process accomplished through collaboration between individual consumers and institutions” (Wang, 2017), to which marketers are added as third-party, by acting out fruitful behavioural economics approaches projected towards the implementation of such conduct. In this sense, nudging is considered to be one of the most useful tools when willing to achieve effective shifts towards a desired behaviour, as it is not as restricting as other practices, as – for instance – choice editing (Lehner et al., 2016). For this reason, nudging

techniques could have a high potential in incentivizing sustainable consumption (Demarque et al., 2015), though they often imply consumers' low involvement. As to overcome this passive option, and as to ensure a high level of involvement, this tool could be integrated and completed with the so-called "self-nudging", which is definitely more effective in the long-run and aims at a conscious translation of biased and automatic cognitive processes (Torma et al., 2017).

As proposed by Demarque et al. (2015), nudging could be applied to realistic shopping environments, as to promote a "minority behaviour", and is therefore introduced within the sphere of product purchase, which, indeed, encompasses a deep experiential consumption perspective (Davis and Hodges, 2012). According to Kim et al. (2014), consumers' experiential value (Mathwick et al., 2001), along with perceived value (Sweeney and Soutar, 2001), shopping value (Babin et al., 1994) and the new and comprehensive measure of shopping value orientation (SVO), are fundamental in describing consumers' shopping experience, and, above all, play a decisive role in helping retailers meet consumers' expectations. Nonetheless, SVO is extremely close to sustainability, as it implies a holistic approach, and, as it often happens with personal value orientations, it has a positive influence on pro-environmental behaviours (Muposhi et al., 2021).

## **1.2 Fashion and sustainability**

According to the last paragraph, sustainable production *and* consumption could be considered as part of the main pillars of the eco-conscious consumer (Hameed and Waris, 2018), whose concerns regarding environmental and social sustainability are inevitably reflected in his purchasing behaviour (Teiga et al., 2016) and attitude towards shopping manners.

In particular, sustainability is often evaluated within consumers' decision-making processes, as the urge for sustainability could be considered a decision-making strategy itself (Waas et al., 2014). According to Waas, sustainability assessment encompasses three main steps, which, in turn, could serve as useful tools to drive these processes. Citing the study, "sustainability assessment is any process that aims to: contribute to a better understanding of the meaning of sustainability and its contextual interpretation (interpretation challenge); integrate sustainability issues into decision-making by identifying and assessing (past and/or future) sustainability impacts (information-structuring challenge); foster sustainability objectives (influence challenge)." The engagement in sustainable choices and behaviour is therefore fundamental for consumers – thus, for marketers, though the integration of sustainability in these processes is yet to be completed. For this reason, in

spite of a broadcasted and spread awareness of the topic, there is still a gap between consumers' ideal and real consumption attitudes, as sustainable intentions do not universally translate into likewise sustainable consumption (Caferra et al., 2023).

With regards to this discrepancy, often referred to as *intention-behaviour gap* (Sheeran et al., 2016), or *attitude-behaviour gap* (Boulstridge and Carrigan, 2000), research has focused on demonstrating this orientation also in the fashion field. In particular, according to Sudbury and Böltner (2011), this gap could be easily scrutinised along two major trends in fashion – ethical issues and throwaway fashion. Following what has been highlighted, this breach is enhanced when related to non-sustainable consumption, and, therefore, to non-sustainable production, which are the main engines carrying on sustainable development (Terlau and Hirsch, 2015).

### *1.2.1 Non-sustainable practices in fashion industry*

As just mentioned, fashion's two-sided business model, along with the management of its productive and supply chains (Buzzo and Abreu, 2018) is subject to a meticulous analysis, which encompasses the involvement of sustainability and its implications. Fashion and sustainability are largely thought to be in a dichotomous relationship, as, according to statistics provided by Sordello (2021), fashion is one of the major environment-polluting industries in the world, with special regards to the clothing field. Nonetheless, the clothing industry has been involved in several product-harm incidents – e.g., toxic chemical scandals – (Grappi et al., 2017). Causes of this negativity happen to have a double source, which is built upon two major actors: on the one hand, fashion industry is willing to achieve a high score in terms of dynamism and versatility, as to keep the pace with the increase in competition and, on the other, consumers are becoming extremely demanding, following fashion's continuous replacements.

In particular, fashion industry was inevitably subject to a huge partition in new “areas”, in order to obtain a wider scope, which could overcome the traditional strategies of segmentation and targeting, by exploiting the opportunities of globalization with pronounced reactivity. This is the case of *fast fashion*, which has totally overturned the world of fashion with its widespread and overwhelming structure advocating mass-consumption (Binet et al., 2019). Fast fashion is therefore gaining success among consumers, acquiring a profitable position within the market (Bhardwaj and Fairhurst, 2010), but at sustainability's expenses.

Due to its projection towards mass-consumption – often synonym of non-sustainable consumption (Koroneos et al., 2012) – fast fashion discloses hindering and unsurpassable negativities, though it is



largely successful thanks to how properly and accurately fits into the polyhedric nature of fashion. In fact, this concept is founded on the reduction of the so-called “Time-To-Market”, thus the implementation of supply flexibility (Hausman and Thorbeck, 2010), the reduction of product development cycles and the improvements in the speed of production (Cohen et al., 1996). As stated by Joy et al. (2015), fast fashion mimics collections deriving from luxury brands, and this is one of the main causes of its success, especially among young consumers, who are attracted by its intrinsic low-cost price and short-time usage, achieved mainly through cheap manufacturing (Niinimäki et al., 2020). Redundant to confirm that the rise of fast fashion has unveiled the risks of unsustainability to developing countries (Nguyen et al., 2020), as well as disclosing a serious lack of a CSR model implementation, especially in its supply chain. With this regard, it is important to cite the Rana Plaza collapse disaster, happened in Bangladesh in 2013, which has risen up and enlightened the non-compliance of the ready-made garment (RMG)’s industry with fundamental pillars such as workplace safety (Barua and Ansary, 2017).

Nonetheless, this specific business model is based on extremely-decreased uncertainty within the demand, considering both up-stream and down-stream flows, and it almost eludes all the issues related to the introduction of any plausible innovation to be added to the productive process or to the value chain (Cietta, 2008). Timing – and, overall, its concise and precise segmentation – assumes a central role within this field, as to proactively respond to the aforementioned “Time-To-Market”, and to cleave to the *Quick Response Method* (QRM) by which it is characterized. As described and presented by Fares et. Al (2018), this mathematical operation model is set to guarantee the mentioned high flexibility, as well as allowing “international retailer to correct the initial replenishment decisions, according to the market responsiveness and the latest sales data, in order to re-define continuously and dynamically the replenishment policies, in line with the fast fashion market speed”. Consumers’ massive resort to fast fashion is mostly derived and therefore connected with the growth of new media, with special regards to the increasing usage of social media (Buzzo and Abreu, 2018). In fact, according to Colucci and Scarpi (2013), Generation Y and Generation X – respectively, people born between 1977 and 1994 (Paul, 2001), and the precedent-adjacent generational cohort – display similar behaviour within fast fashion consumption. Namely, continuing with the authors’ investigation on the Generational Theory, which is the examination of similar ages’ groups as to predict their key characteristics for the future (Okros, 2020), generational groups tend to display similar approaches towards shopping. Therefore, they tend to showcase almost congruent purchase behaviour and intentions, especially if applied to the field of fast fashion, which focuses on mass-targeting.

With respect to social media, there is solid evidence that “fashion-conscious” consumers specifically, who “want to keep their wardrobe up to date with the latest style and gain pleasure from shopping” (Bakewell and Mitchell, 2003) – are extremely influenced by social media. In fact, as stated by Michaela (2015), social media is thought to be one of the main channels through which brands spread and broadcast information to consumers, whose fashion knowledge and awareness of new trends – granted through this mentioned usage – has a profound impact on their purchasing intentions, as consumers are constantly exposed to such information and are therefore prone to deviate towards fast fashion products. Nonetheless, fast fashion retailers make great use of social media, which provides them with “a platform for nurturing brands and affecting consumers’ purchase decisions”, implicitly exploiting consumers’ enjoyment in interacting and communicating with each other, as to consequently steer their buying intent as a whole (Michaela, 2015).

Fast fashion brands – such as Zara, which is the pioneer in this field – invest in social media marketing as a tool to raise consumer engagement, as opposed to traditional marketing practices that seem obsolete in such a dynamic environment. Research by Koivulehto (2017) has provided that perceived social media marketing activities do play an important role in establishing loyalty among consumers, and have a positive effect on brand, value and relationship equity – respectively, following Lemon et al. (2001), consumers’: intangible assessment of a brand; perceptions of the firm’s quality, price and convenience; affinity to be loyal to the brand – which, in turn, positively influence purchase intention. These relationships are also confirmed within fast fashion industry, though brand equity also increases awareness’ thresholds.

In particular, in spite of a glaring reinforcement of consumers’ consciousness – achieved through brand equity – thus their plausible realisation of negativities inevitably connected to this field, fast fashion is considered to be the easiest choice to opt for. Considering the power that social media has, and universally evaluating the implementation of new marketing, there is still little and limited usage of such a tool. Though social media could be extremely useful in conveying positive purchasing behaviours, and promoting sustainable consumption, especially “sustainability leaders” (and not only fashion retailers) do fail in communicating positive attitudes and behaviours correctly. According to Carpenter et al. (2016), they “primarily perceive social media platforms as useful for encouraging action and disseminating information, but they rarely use it to build community around causes and groups”.

### *1.2.2 Luxury sustainability*

With regards to luxury industries, it is first and foremost necessary to introduce the so-called “value-based management”, as to highlight the key role of value creation within the world of fashion. As described by Martin et al. (2001), value-based management (often referred to as VBM) primarily conveys a total change in the management’s perspective, by the definition of a solid bond within employee-level and owner-level. Following this approach, the business enters an overwhelming and continuous cycle of value creation, enhancing both stakeholders’ and shareholders’ value, whose interests rotate and gravitate around the business itself. Often tied up with the so-called “Economic Value Added” (EVA), which is a useful tool to align corporate goals to stakeholders’ interests (Worthington et al., 2001), value-based management encompasses a series of practices which for sure involve sustainability. For instance, following the decision model proposed by Müller and Pflieger (2014), by making use of the above-mentioned management tool, there is the vivid possibility of “aligning ecological, social and economic objectives” as to determine “the optimal increase of the sustainability maturity level”.

By combining the paradigm of the value-based management’s long-term effects –essential basis for a strong economic valuation, along with basic Corporate Social Responsibility (CSR) factors, authors have found out that moving towards sustainability implies several stages of development and maturity. These serve as “a measure to evaluate the capabilities of an organization in regard to a certain discipline, and thus provide a framework for prioritizing improvement actions that are meaningful to the organization”; nonetheless, the quest for sustainability, and, therefore, the achievement of a certain level of “sustainability maturity”, could be easily considered as the objective towards which the organization is practically moving.

According to Müller and Pflieger, and having considered also the investments needed to translate theoretical thoughts into feasible actions aimed at improving sustainability, it is clear that implementing sustainable processes, and creating sustainable value, imply a frequent and consistent resort to all forms of capital (Figge and Hahn, 2008), with special regards to the economic one. Indeed, luxury brands are defined as “cash intensive”: their luxury criteria – the conjunction of uniqueness, timelessness, excellence, iconic communication, sensual aesthetic and brand soul – do necessitate the recurrent resort to investments, and to a substantial capital (Growthgate Partners, 2014). For this reason, following this study, it is now of common practice among luxury brands to draw upon forms of private equity which could easily meet brands’ equity, which in most cases is either leveraged or built through the entrance in the so-called “conglomerates” (as LVMH, in the case of leveraged brand equity, or Richemont, for built brand equity). In simple terms, private equity funds, either national or international, are often referred to as “alternative assets” (thus, their investments

are usually non-conventional) with the goal of transforming “under-performing companies to capital-efficient and profit-generating companies” (Heed, 2010).

In particular, luxury industry is progressively relying on extraordinary-finance transactions – with special regards to the above-mentioned private equity and to the larger field of Mergers and Acquisitions (frequently known as M&As) – which, in this field, are usually adjacent to disrupting changes in the company’s ownership. As stated by Martini (2020), there are mainly three reasons behind which the resort to M&A is widely spread: strategic, managerial and financial – which respectively add to the company large benefits. According to Quacquarelli (2017), in the period 1999-2014, luxury’s M&A deals account for 69% of the contracts of the whole industry, representing 71% of the value of them.

Having just provided the reader with a basic and elementary financial framework on luxury investments, it is now important to link the mentioned notions to sustainability and green finance, encompassing the emerging mechanisms that promote the development of sustainability within businesses. As previously stated, leveraging brand equity is at the core of luxury conglomerates, and the promotion and integration of consistent sustainable development has now shifted from an optional to a mandatory business activity (Ivan et al, 2016). For instance, according to the authors, the colossal group of LVMH has a dedicated environmental department, which not only has shaped the company’s core value, but has also permitted to investigate sustainable practices within the world of luxury, with special regards to the so-called sustainable luxury brand communication (SLBC), aimed at “educating and helping fuel the shift in consumer values toward a more sustainable paradigm”. LVMH has also started the program LIFE (LVMH Initiative For the Environment), which integrates both SD and CSR efforts in one single channel, and this could be considered as a practical example of a profound interlace of these two different yet complementary concepts.

In fact, stemming from the field of semiotics, and following the internal and external discursive analysis provided by Lo and Ha-Brookshire (2018), there is certainly room for the so-called “sustainable luxury”, in which qualities of both sustainability and luxury converge in, resulting in a common and intersective discursive domain which implies characteristics such as materiality, quality closely managed supply chain and centrality of the maker. Though in this way sustainable luxury could be thought as an easy-to-achieve goal, this analysis highlights that there are still several elements of each domain which are not present in others, thus underlining the liminal space and the contradictions between these discourses. In particular, according to the authors, sustainable fashion could be considered as an *ethos* to which consumers stick to – as the value of fashion itself is merely symbolic (rather than economic) – and desire and desirability could be thought as the subtle yet neat

line in which both concepts fall in. Not only this *ethos* is reflected in the way consumers interact with each other, but it is the primary way in which a company communicates its core values. Therefore, fashionable goods, whether luxurious or sustainable, along with their perceived value to customers, contribute to the enhancement of the company's *ethos*, and the possibility of merging sustainability and luxury within the same domain, could easily concur at establishing the company's success.

Having at this point introduced the transparently recognisable bond within sustainability and luxury, it is again necessary to focus on the concept of slow fashion, which, inevitably, could be then linked to sustainable luxury, and could offer the reader a more complete and wide view on the topic. The term "slow fashion" looks back to the 1980s' slow food movement, which grounded in Italy in response to the negative fast-food lifestyle, and it is a practical and reactive acknowledgment of the need for sustainability in the world of fashion, as opposed to the previously mentioned fast fashion and the consequent downturn of overconsumption (Pookulangara and Shephard, 2013).

According to Domingos et al. (2015), slow fashion inevitably influences consumers' behaviour, and, therefore, consumers' decision-making, by focusing on the core values to which the sustainability-conscious subject sticks to, as to further delineate the figure of a slow-fashion consumer, whose values are solidly built upon strong individual ethics.

As stated by Clark (2015), though slow fashion is still thought to be an oxymoron, there are three directions – also recalling the slow food system – which could easily establish a link within fashion and sustainability. First of these characteristics is "the valuing of local resources and distributed economies"; followed by the search for transparency, especially in the production process (as to reduce the ideological "distance" between the producer and consumer) and the focus on the long-lasting usable cycle of sustainable items (this last topic will be further investigated in the last paragraph of the literature review).

With regards to these concepts, the bonding connection within the so-called slow fashion and luxury could be easily listed among the sustainable practices related to the fashion industry. In fact, together with the quest and search for sustainability, slow fashion could be further conveyed through luxury fashion (Karaosman et al., 2016), and – if placed among a theoretical fashion matrix framework – slow fashion shows almost the same placement of luxury brands, along the seven characteristics of price, quality, cost of production, style, service, quantity and customer base (Štefko and Steffek, 2018). Furthermore, as stated by Pencarelli et al. (2019), by founding their analysis the aforementioned matrix, slow fashion consumers are also those who engage in luxury consumption and, therefore, there is a real intersection between these two segments of consumers.

### **1.3 Fashion sustainability's impact on consumers' behaviour and psychology**

Having already introduced the concept of sustainable consumption, it is now first and foremost needed to investigate the relationship within sustainability (also in the fashion field) and the behavioural and psychological sphere of the consumer, and especially evaluate the influence that this aspect has on purchasing intention and decision-making.

In the foregoing oxymoron within sustainability and fashion, a new segment of consumers is emerging, referred to as “sustainable fashion consumption pioneers” (Bly and al., 2015). Specifically, according to the authors, these consumers engage in behaviours which result in proactive actions, such as the creation and communication of effective strategies for the implementation of sustainable behaviours within the world of fashion, which could yet surpass this paradoxical oxymoron. The study at stake moves from the assumption that sustainability consumption encompasses a change in consumers' personal style, rather than in fashion itself, which could convey a shift towards more sustainable practices in purchasing decisions (e.g., the purchase of second-hand products). For this reason, personal style could “bridge the potential disconnect between sustainability and fashion, while also facilitating a sense of well-being not found in traditional fashion consumption”, thus searched, instead, in a sustainable one. According to this paper, in fact, sustainability is thought to be “a facilitator of style” and, in turn, sustainable fashion as “a source of pleasure and well-being”. Therefore, consumers who are willing to achieve such degree of impact – while avoiding turning down on fashion's trendiness and fanciness – need to engage in this 360° mentality, which certainly further explores the boundaries of limiting environmental impact and implies the embracement of sustainability as a whole.

As just confirmed, there is a strong connection within choosing sustainability and moving towards sustainable practices, and consumers' psychology and behaviour. Several papers have investigated the combination of sustainability and the so-called “psychological well-being” – often referred to as PWB – which could result in a powerful synergy enhancing both values and highlighting their interdependency (Kjell, 2011). Provided this, there is also evidence that PWB is again enhanced by the engagement in “happiness-relevant activities”, which are listed among intentional activities displaying subjects' high involvement (Vallerand, 2012). Indeed, according to this author, the intentionality underlining such manner are often related to the concept of “harmonious passion” (as opposed to the other type of “negative passion”), contributing to the intensification of sustainable psychological well-being achieved through “the repeated experience of positive emotions during task engagement”.

Given that shopping for fashion goods could be easily associated with harmonious passions, and having explored beyond the boundaries of sustainable consumption's beneficial effects, it is now time to investigate – in the following paragraph – whether customer emotions related to sustainable practices could play a role in decision-making.

#### **1.4 Sustainable cues on luxury products' packaging**

Having introduced the literature which is behind the choice of the proposed framework, it is now important to start analysing each single variable, and how could these be tied up together, as to understand what the underlining juxtapositions and connections within these three concepts are. This analysis is again part of the literature review already brought up, meaning that it just has the purpose of giving a wider perspective to existing research on the variables selected. For this reason, this paragraph will be first considering an investigation on the predictor *sustainable cues on luxury product* (independent variable X), followed by an explanation of the criterion *guilt reduction* (dependent variable Y), and of *product durability evaluation* (mediator M), thus moving from the generic literature review approach chosen so far to much more specific references exclusively aimed at explaining these variables.

Once having given a basis on the above matter, the research question, along with the framework, and the hypotheses will be then further explained in the following chapter.

##### *1.4.1 Sustainable packaging*

In the 4Ps of marketing (product, price, place and promotion), packaging has always been considered as part of the product, though several authors have considered packaging as a free-standing instrument to be used in order to communicate a strong and effective brand image. For this reason, according to Keller (2003), packaging needs to be accounted within brands' marketing communication efforts, as to create a customer-based brand equity leading to consistent brand knowledge.

Stemming from the traditional “*contain-protect-communicate-facilitate convenience*” model of packaging functions proposed by Lydekaityte and Tambo (2020) and from the conventional definition of this matter, existing research has highlighted that packaging is an extremely important tool to take

in consideration within retail world. In fact, while playing a crucial role in consumers' decision-making, as it is the first touchpoint in the journey to which consumers are exposed to, packaging has been found to be extremely influential especially in their purchasing behaviour (Silayoi and Speece, 2007). Considering the strong connection within package itself and consumers' purchasing behaviour, and as to conduct a proper analysis on how this could affect the decision-making process, the model proposed by Agariya et al., (2012) is of great help. Having firstly encompassed existing research, the authors have divided the main characteristics of packaging in two macrocategories: visual (including graphic, colour, size, form and material) and verbal elements (product information, producer, country of origin and brand), which both influence consumers' purchasing behaviour and final decision. In the cause-effect relationship established among these concepts, they propose that there are mainly three factors which could play an effective role in deviating and steering this process, which are, in turn, level of involvement, individual characteristics and time pressure. With special regards to the first factor – level of involvement – it has been found that consumers displaying low involvement are more sensitive to visual elements, whereas those who show high involvement are more influenced by verbal elements of packaging.

Taken this contribution into account, it is now easy to say that “sustainable” packaging is synonym of “verbal” packaging, as all the elements of this category could be easily interchangeable with those referring to sustainability. In particular, having implied that high-involvement-consumers steer towards different purchasing decisions, also sustainability characteristics do play a significant role in decision-making processes.

Though it is difficult to give a proper and single definition of sustainable packaging, due to the aforementioned multilaterality of this concept, the Sustainable Packaging Alliance (SPA), whose main aim is to give educational guidelines to ease the development of packaging strategies, has proposed a definition encompassing four main characteristics – effective, efficient, cyclic and clean – tied up with respective KPIs. In turn, these factors are aimed at limiting the environmental impacts of both the packaging production and postproduction. With these regards, *effective* relates to functionality, as to achieve conscious consumption; *efficient* is connected to limiting excessive waste; *cyclic* encompasses a practical implementation of the so-called “three Rs” model (reduce-reuse-recycle), and *clean* regards the safety sphere of the product, with the reduction of plausible risks to which consumers could be exposed to. According to Lewis et al. (2007), when evaluating packaging sustainability, there is the need to consider the lifecycle of the package, along with the product-packaging system and its impacts on the business itself, on people and on the environment. Such definitions have then been expanded by the Sustainable Packaging Coalition (SPC), by especially focusing on the renewable sources with which the packaging needs to be imagined and produced.



Sustainable packaging is therefore related to packaging design, which is now gaining more attention in comparison to previous times (thanks also to consumers' concerns on environmental issues), as it has always been thought of as a secondary matter to product and production system design, even though it serious impacts both on the supply chain and on product performances (Azzi et al., 2012). In reality, it is not the packaging itself, but rather the packaging design which could influence consumers' purchase decisions: for this reason, according to Steenis et al. (2017) packaging “provides the relevant cues from which consumers infer sustainability”.

Namely, considering that sustainability could be evoked both implicitly and explicitly (respectively with visual and verbal elements), an effective cue-utilisation could be extremely helpful in eliciting desired consumers' decision-making and influencing their perceptions. This concept will be further discussed in the following paragraphs.

#### *1.4.2 Luxury products and sustainable packaging*

With regards to the dichotomy within luxury and sustainability, already investigated in the previous analysis, it is necessary to investigate whether this concept could be further explained in relation to packaging design. Extant research has focused on the efforts of luxury industries to convey prestige, with the usage of specific associations of colours (gold and silver, black and white) and shapes, but consumers are now seeking in these products different values, which shift to sustainability and environmental friendliness.

In particular, according to Aguirre (2020), luxury packaging is negatively associated with waste and reduction, as it specifically involves the usage of voluminous and thick and heavy materials, often paired with sophisticated kinds of plastic (as to guarantee the “glossy” finish which is usually linked to luxury) (CITEO, 2019). Therefore, packaging is now considered to be superfluous, especially if not related to sustainability. As stated by this study, out of 500 people who have been surveyed (of whom 95% under 35), 77% of them would not choose luxury brands if their packaging were not conceived and produced in a sustainable way, and 75% of them think that this shift is responsibility of the manufacturer.

Having considered consumers' propensity towards a greener perspective, luxury has now the potential power to lead the sustainable transition, by complying to its values also with the packaging itself, though still occupying a limited space within the packaging industry as a whole. For this reason, luxury brands are trying to promote sustainable consumption, by encompassing also some changes in the packaging, both in the usage of the materials and in the design, as to effectively promote the

sustainable commitment of the brand at first sight and to hopefully achieve a much higher purchase intention in eco-conscious consumers.

Generically speaking, LVMH has had conveyed and continues to show a strong change towards eco-packaging. According to their “Committed to Positive Impact” social and environmental responsibility report (2021), 41% of their packaging is made of recycled raw materials, with the will to achieve a target of 70% by 2030, along with a reduction of 6% in the usage of virgin fossil-based plastic. Nonetheless, with regards to their LIFE 360 programme, the company will reach zero virgin fossil-based plastic in packaging by 2026, followed by the achievement of eco-designing 100% of the company's new products by 2030, as to lengthen the lifespan of each product. In order to fulfil these goals, LVMH works in tight connection with the Environmental Centre for Eco-friendly Packaging Breakdown and Recycling (CEDRE), as to sort, recover and recycle all the waste deriving from the brands' supply chains. In addition, LVMH has developed consistent guidelines on how to re-design the packaging in a sustainable way, with the “E-commerce packaging” guide, along with complying with the Environmental Performance Index (EPI) for packaging.

Focusing on the group's singular brands, Bulgari has redesigned its packaging by reducing its weight and volume. For instance, their fragrance “Terrae Essence” is not only designed by using eco-friendly materials (bottle is 40% recycled glass and cap is 95% recycled plastic), but it is also manufactured as to guarantee several refills in the same bottle over and over. Always wandering within the cosmetics field, Christian Dior has introduced in its productive chain a new material, the Eastman Cristal Renew copolyester, composed of 30% recycled elements, with which its lip products are made. Moving on to the leather goods division, Louis Vuitton has committed in using blended wooden boxes for their gift boxes, in accordance with the Forest Stewardship Council (FSC).

Though LVMH's commitment is extremely tangible, also other luxury conglomerates have followed the same stream, in order to move towards sustainable packaging. According to Kering Standards for sustainable production, the group is sticking to an eco-friendly sourcing of materials, which is mostly based on paper and wood-based products resulting from sustainably managed forests – always in line with the aforementioned FSC – has guaranteed an optimal increase in designing recyclable packaging. Kering is trying to break its dependency to virgin materials as to increment the usage of recycled ones and limit the waste of toxic substances thanks to its Kering Standard for Plastics. For this reason, the group's aim for 2025 is to totally avoid using or including polyvinyl chloride (mostly known as PVC) neither in products nor in packaging, as it is extremely harmful both to people's health and to the environment. Following its standards, whether it is not possible to fully be independent from the usage of plastics in packaging, Kering is committing to use 100% of recycled plastics.

One of Kering's most successful brands – Gucci – along with reducing both the volume and any waste related to its packaging, has been certified with the FSC certification. According to equilibrium.com, from 2020, under the supervision of its former creative director, Alessandro Michele, Gucci has introduced its infamous green box, which not only recalls sustainability and nature at first sight, but is also made with recycled paper and cardboard<sup>2</sup> (e.g., the typical green colour is made using reduced quantities of ink and the damask pattern on the box is given at the beginning of the production process of the box itself, as to avoid the usage of any plastic material). While introducing the box has been common to each Gucci's function, the brand has decided to differentiate the in-store packaging from the e-commerce one. For instance, for what regards the in-store packaging, there is a 100% recycled polyester handbag (its handles are knotted instead of being glued, in order to facilitate the future recycling process), and a black dust bag which is made of recycled cotton in addition to the box, which is totally made of recycled materials (e.g. ribbons and hangers). Simultaneously, the e-commerce packaging has been conceived and reshaped in order to optimize transportation and to consequently reduce the carbon footprint deriving from an extensive usage of vehicles needed to transport the products.

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<sup>2</sup> <https://www.youtube.com/watch?v=6O2Xr2IBGAs>

## CHAPTER 2: HYPOTHESES DEVELOPMENT

Having introduced the theoretical background in which this thesis is grounded – from sustainability to luxury, this chapter will discuss the hypotheses development, by evaluating the focal constructs and exploring the main literature to which the variables are connected to. In particular, the second chapter will be structured as follows: firstly, the analysis of the direct effect between presence of sustainability cues and sense of guilt reduction; secondly, the mediation effect of product durability evaluation, followed by a figure displaying the conceptual framework. Respectively, the direct effect will comprehend two subparagraphs on extant research which has guided the hypothesis development, whereas the mediation effect will include a single-standing subparagraph on the same considered matter.

### **2.2.1 Direct effect**

#### *2.1.1 Sustainable cue-utilization*

Traditional cue-utilization theory is derived from Olson and Jacoby (1972), with the categorisation of cues into intrinsic and extrinsic ones, which are therefore used by consumers either independently or conjunctly to judge brands' quality (Mishra et al., 2020). Extant research has focused on the potential power of cue-utilization, which could definitely have a profound influence on consumers' behaviour towards purchase, thus having effects on their customer journey. Accordingly, sustainable cues are accurate information which affect consumers' decision-making especially in the purchase of sustainable products (Lee et al., 2020).

Orth and Malkewitz (2008) have researched that conveying meaning by the usage of cues is now central for retailers and brand managers, whose main aim is now including visual cues directly onto the packaging of the product itself. Stemming from cognitive psychology, authors affirm that design-based judgments do play an active role in decision-making– especially design-evoked ones – as they consistently shape consumers' behaviour, thus extending their influence on choice.

In particular, when associated to sustainable packaging, efficient sustainable cue-utilization could result in desired decision-making and consequent purchase intentions.

According to Fani et al. (2022), in order to explicitly communicate their strategy, and to convey product's sustainability to consumers, companies are now introducing sustainability cues on their packaging.

With special regards to fashion sustainability, participants involved in the study have provided that there are mainly two levels of sustainability perception: product and production process level, which are respectively connected (as a sustainable product is also thought to be produced in a sustainable way), though poorly perceived by consumers, whose scepticism towards sustainable fashion practices is still vivid and clear. This results from fashion's unsuccessful sustainability communication, which is often left implicit and lacking of some serious information that could guide consumers' choices.

Sustainability cues could therefore fill this gap, as it could allow consumers to draw environmental, social and ethical considerations on the product (Rees et al., 2019), while also enhancing perceptually salient features of the product (among which sustainability is accounted) and the inferential process to which consumers are subjected to (Steenis et al., 2017). According to this study, and considering that in purchasing circumstances cues are multiple and consumers' attention is not steadily focused (Higgins, 1996), their perception is not always immediate and active, and cue salience –the proneness of cues to be recognized or recalled (Romaniuk and Sharp, 2004) – does play an important role in shaping consumers' inferences and guiding their decision-making process.

### *2.1.2 Guilt reduction*

As mentioned before, this thesis moves from the analysis of the so-called “functional alibi”, and its plausible relationship with sustainable luxury. Though it is a largely spread phenomenon, functional alibi has been studied in depth just by Keinan et al. (2016). When purchasing hedonic goods (among which luxury products are perfectly included), consumers do perceive them as immoral and frivolous. Rather than considering them as something to benefit from, consumers do evaluate hedonic purchases as a vice. For this reason, in order to inflate more “value” to a purchase which is considered to be too frivolous by consumers, marketers need to implicitly associate to it a functional alibi, which is, indeed, the tendency of justifying the purchase by providing an “alibi” that would make the purchase more rational and logical. Namely, adding a small utilitarian feature to the product, would not only reduce consumers' sense of guilt in having purchased a luxury product, but would also enhance the belief that the purchase has been shaped by functionality, instead of simple hedonic desires.

The sense of guilt resulting from buying luxury goods could also be reflected in the post-purchase. Therefore, it would be desirable for retailers and marketers to reduce this sense of guilt implicitly rooted in consumers' minds, as to guarantee a linear and smooth customer journey, beneficial for both parties.

Extant research has focused on the role of guilt in consumers' behaviour and how this concept could influence sustainable consumption. According to Ki and Kim (2016), whose definition is stemmed from Burnett and Lunsford (1994), guilt is a violation of an internal standard of a person and, when inserted in a consumption surrounding, it stands for consumers' negative response to a buying decision which, in turn, has violated their personal social norms and/or values. In particular, consumer guilt is categorized into anticipatory and reactive states of regret, which are shown during decision-making and could influence it negatively. In fact, as stated by Wonneberg (2018) guilt arousal is increased in contexts which display high-involvement in environmental issues, rather than low-involvement ones. Indeed, it is clear that there is a strong connection between non-sustainable practices and guilt, especially in consumers' decision-making. Accordingly, Antonietti and Maklan (2014) evaluate that feelings of guilt and pride could regulate and therefore promote sustainable consumption, by influencing perceived consumer effectiveness (PCE) – namely, the effectiveness of consumer choices. In addition, Kapferer and Valette-Florence (2022) have analysed levers of guilt with regards to luxury consumption and, especially, to the feelings of self-indulgence, frivolousness and hedonism to which it is associated. Luxury is prone to evoke feelings of guilt, as luxury products often convey intangible values – either emotional (hedonism) or symbolic (self-image), in opposition to premium goods, in which functionality is substantial and tangible. Citing Burnett and Lunsford (1994), the authors suggest that guilt-induced behaviours in luxury consumption are strictly related and triggered by the cognitive dissonance status in which consumers happen to be. As a result, when purchasing something considered expensive, materialistic and hedonistic, consumers tend to display self-imposed compliance to reduce both the cognitive dissonance they are experiencing, as well as the guilt to which the purchase is associated to.

For this reason, the main aim of this study is to evaluate whether there is a direct effect within sustainability and guilt reduction. According to the given literature review, luxury context will be the framework in which this influence will be analysed. Therefore, this thesis predicts:

***H1: The presence (vs. absence) of sustainable cues on luxury products will result in higher reduction in consumers' sense of guilt.***

### 3.2.2 Mediation effect

#### *3.2 Product durability evaluation*

Having introduced the first hypothesis, it is now time to assess product durability evaluation, and its plausible mediation effect within the framework.

Previous research has widely investigated product durability – especially perceived product durability with regards to the world of luxury. Indeed, durability, defined as the quality of a product of being able to last for a long time without damages or breaks (Vanacker et al., 2022), could be accounted among the main characteristics of luxury, along with quality and craftsmanship (Amatulli et al., 2017). The Ellen MacArthur Foundation (2017) has focused on the necessity to move towards a durability-focused design of products in order to ensure the green transition. Specifically, durability is here categorized in two different dimensions, which are physical and emotional. Respectively, the first identifies the ability to resist “wear and tear” (e.g., as the product is manufactured with durable products), whereas the second recalls the emotional value which the consumer links to the product because of its making process or something related to the perceived durability of the product itself (e.g., it is tailor-made or self-sewn).

Moving from the research provided by Aliyev et al. (2019), product durability does play an important role within luxury, as it influences consumers' environmentally-conscious buying intentions. Sun et al. (2021) affirm that luxury is strictly connected to product durability, though consumers do often fail in considering these two matters linked. Nonetheless, durability is considered to be a fundamental dimension of both sustainable consumption and luxury. The former benefits both the companies and the consumers, as it focuses on products' life span, and displays characteristics of functionality (the aforementioned “the ability to resist tear and wear”) and style (it conveys a sense of timelessness); the latter, instead, is based on the assumption that sustainability and luxury overlap on the product durability dimension.

As stated before, consumers do start their decision-making processes based on available and easily accessible cues and attributes of the product of interest. In particular, the authors affirm that luxury items are liable of the so-called “product durability neglect”, which discourages its consumption in favour of low-end products. During the purchase phase, consumers fail to consider durability as a crucial characteristic of high-end products, due to durability not being as salient as other aspects, such as individual (e.g., self-identity, indulgence and hedonism) and social (e.g., status signalling). Product durability neglect is therefore caused by information not being readily available to consumers, who instead focus on other characteristics, and disregard usage frequency and lifecycle. Namely, though

it is of common thought that high-end products (indeed, luxury products) do have a longer life cycle in comparison to low-end ones (e.g., fast fashion), consumers prefer investing small quantities of their budgets on multiple ordinary goods, rather than displaying a bigger amount of budget on fewer high-end products, due to the this bias. Stemming from behavioural economics, with special regards to the topics of choice architecture and nudging techniques, product durability salience could be increased, as to enhance and encourage the purchase of high-end products, which, for intrinsic matters, do have a longer lifespan. This would result in high benefits also for the environment, thanks to durability of the high-end good being longer and to the product itself being owned for a longer period of time – which, indeed, implies a more environmentally-friendly disposal. With regards to this last matter, the study at stake also predicts that higher the luxuriousness of the product, the longer the predicted ownership and the higher the intention of engaging in sustainable disposal behaviours.

Having considered the previous review, it is indeed necessary to consider product durability evaluation of consumers within the proposed framework. In particular, given that consumers do make choices on accessible cues, and considered the theorised direct effect within sustainability and guilt reduction, the following hypotheses are proposed:

**H2a:** *The presence (vs. absence) of sustainable cues on luxury products corresponds to a higher overall evaluation of product durability in the purchase phase*

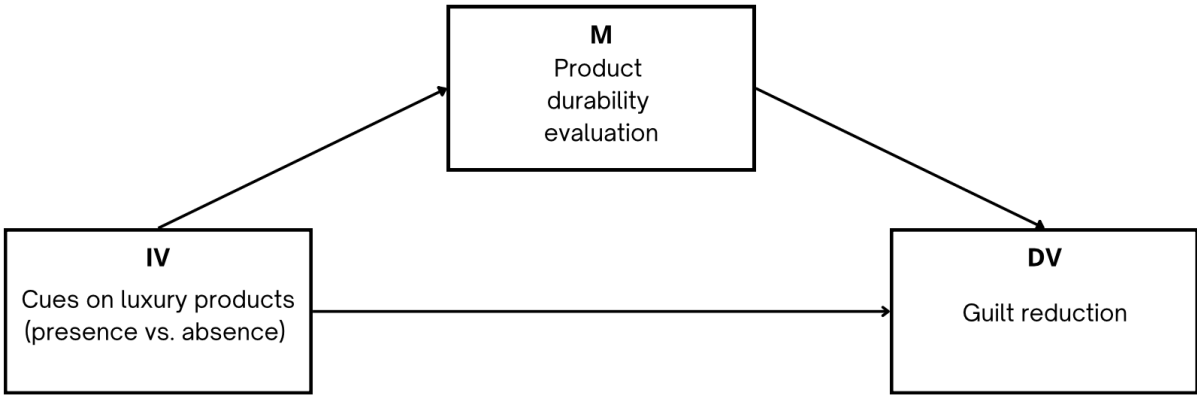
**H2b:** *The higher evaluation of product durability in the purchase phase corresponds to a higher reduction in consumers' sense of guilt.*

Therefore, it is predicted that:

**H2:** *Product durability evaluation mediates the relationship between presence (vs. absence) of sustainable cues on luxury products and guilt reduction.*

Having theorized the previous hypotheses, below is the conceptual framework advanced.





*Figure 1: Conceptual framework*

*Source: Own elaboration*

## CHAPTER 3: EXPERIMENTAL RESEARCH

This chapter will comprehend the description of the quantitative methodology used to analyse the conceptual framework, and to test the hypotheses which were previously mentioned.

With regards to the investigation of the relationships proposed within the framework, this section will be divided as following. The first part will be dedicated to the description of the sample; the second one will illustrate the *ad hoc* created stimuli which were presented to the interviewees and, therefore, display the scales and items presented throughout the questionnaire. The very last subsection will show the analysis of the results, which will be accompanied by a dense appendix at the end of the thesis.

### 3.1 Methodology

A quantitative approach was adopted to observe the effect on consumers' sense of guilt when the subjects are exposed to the presence (vs. absence) of sustainable cues on a luxury product, along with the effect of the mediating role of product durability evaluation.

In order to do so, a questionnaire has been developed and administered through Qualtrics XM platform; the data resulting from the survey has been firstly exported and consequently analysed with IBM's SPSS and with SPSS's PROCESS macro.

The experimental study at stake has a conclusive casual research design between-subjects (*1x1*), as respondents were assigned to one of the two groups, having been exposed to one of the two stimuli designed.

#### 3.1.1 *Participants and sampling procedure*

Using the Qualtrics XM platform, 197 respondents were initially recruited, in order to participate in the study for free. As to increase the quality of the data collected, and as to avoid having incorrect results, the final reference sample consisted of 158 people, having excluded respondents who have not completed the survey during the data cleaning process and participants underage. Given the choice to use a non-probability sampling technique, specifically convenience sampling, participants were reached out through message and social media (e.g., Whatsapp and Instagram), and

were presented with the link to the questionnaire at stake. Though convenience sampling could easily display several problems, including issues with representativeness and sampling bias, it has still been chosen as it permits quick and cost-free data collection.

The dataset was collected in a 7-days period, within the first week of September 2023, and the questionnaire was administered either in English or in Italian (originally written in English, and self-translated in Italian). According to the descriptive statistics and frequency distributions provided by SPSS's output, the sample was made up of people within the ages of 18 and 73 ( $M_{age} = 45,48$ ;  $SD = 16,21$ ).

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age	158	18,00	73,00	45,4873	16,20951
Valid N (listwise)	158				

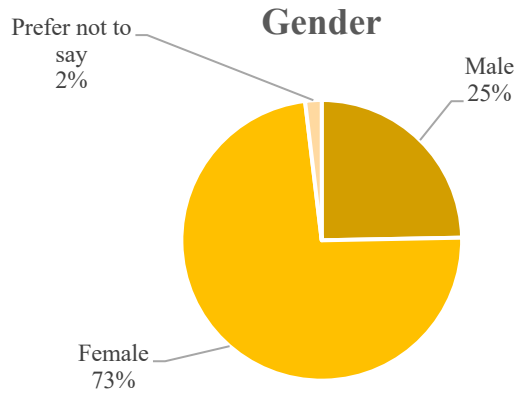
*Table 1: Age*

Sample's gender ratio was 39 males and 116 females (respectively 24,7%, and 73,4%), whereas 3 respondents preferred not to say their gender (1,9%). Most of participants had Italian nationality ( $F=156$ ), though people with other nationalities have responded as well – i.e., Uruguayan ( $F=1$ ), French ( $F=1$ ). Educational level of the sample consisted of  $n=67$  people having high school diploma (42,4%), 30 having Bachelor Degree (19%),  $n=50$  with a Master's Degree (31,6%), whereas only  $n=11$  people had a Ph.D (namely, 7%).

### Please indicate your gender.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	39	24,7	24,7	24,7
	Female	116	73,4	73,4	98,1
	Prefer not to say	3	1,9	1,9	100,0
	Total	158	100,0	100,0	

*Table 2: Gender*



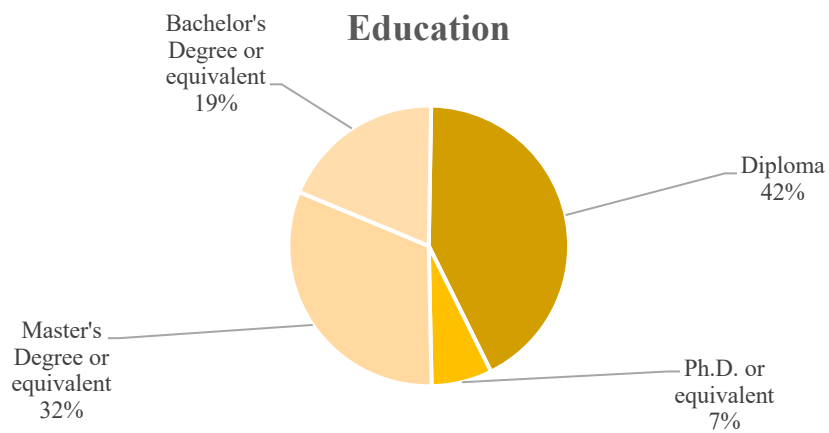
**Figure 2: Gender ratio**

*Source: own elaboration*

**Please indicate your nationality.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	French	1	,6	,6	,6
	Italian	156	98,7	98,7	99,4
	Uruguay	1	,6	,6	100,0
	Total	158	100,0	100,0	

**Table 3: Nationality**



**Figure 3: Education ratio**

*Source: own elaboration*

Considering that this study was aimed at understanding consumers' decision-making, with specific focus on conscious consumers' shopping habits, respondents' environmental concern was positive, as expected. In fact, according to **Table 4** below, 31 respondents (19,6%) have answered that their purchase habits are *strongly* affected by their environmental concerns, congruently with the goal of the thesis, whereas only 5 respondents (3,2%) do strongly disagree with this statement.

**To what extent do you agree or disagree with the given statements:  
- My purchase habits are affected by my concern for our environment.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree (1)	5	3,2	3,2	3,2
	2	4	2,5	2,5	5,7
	3	12	7,6	7,6	13,3
	4	27	17,1	17,1	30,4
	5	42	26,6	26,6	57,0
	6	37	23,4	23,4	80,4
	Strongly agree (7)	31	19,6	19,6	100,0
	Total	158	100,0	100,0	

**Table 4:** Control variable – Environmental Concern

### 3.1.2 Design and measures

The survey was made up of 4 questions, which were measured through a 7-points Likert scale (except for one, which was assessed with a 7-points Semantic differential scale), plus 4 demographic questions. All the scales of the survey have been previously pre-validated.

Each participant of the survey was randomly assigned to two different conditions, which were created *ad hoc* for this study. Though the two conditions were dissimilar and randomly presented, participants were asked to respond to the same set of questions and were totally unaware both of the randomization process and of the objective of the questionnaire, in order to avoid biased responses.

As to manipulate the variables, two visual stimuli were realised. The stimuli at stake consisted in two photos which have been designed according to the proposed independent variable, namely a luxury product with presence or absence of sustainable cues. For this reason, in order to comply with the conceptual framework, participants were randomly shown one of the two photos, both displaying a

black bag of the fictitious “LB23” luxury brand on its brown box. The bag itself was intentionally chosen for its shape, and no logo nor iconic feature was shown, in order not to be recognised, as to avoid confusion among respondents, whose recall actions were consequently prevented.

The first stimulus simply displayed the black bag on the mentioned box, whereas the second showcased the same bag with a written etiquette on its sustainability characteristics. The text recited as follows: “*This LB23 product is totally sustainable and reusable. The bag is in vegetal leather derived from high-quality fibers and its packaging is 100% recyclable.*” The two photos display the same subject, in the same position, with the same colours, and the only difference within them is the label, which has been manually applied via Photoshop, as the study exclusively proposes to test consumers’ post purchase sensations in relation to presence or absence of sustainability cues on luxury product.

Below the two stimuli with absence of sustainable cues and presence of sustainable cues, respectively:



**Figure 4:** *Stimulus 1 – Sustainable cues absent*

*Source: own elaboration*



*Figure 5: Stimulus 2 – Sustainable cues present*

*Source: own elaboration*

After having been exposed to the randomized scenarios, participants were asked to evaluate their sense of guilt through a one item measure retrieved from Lee-Wingate and Corfman (2010) (“*How guilty would you feel about spending money on this bag?*”), assessed through a 7-points Likert scale (1 = “Not at all”, 7 = “Extremely”). Next, as to evaluate the mediating effect of product durability evaluation, respondents were firstly asked to give their opinion on sustainable luxury purchases, through a 3-items measure adapted from Ki and Kim (2016) (“*To what extent do you agree with these statements?*”; “*I bought this LB23 bag for its timeless style*”; “*I bought this LB23 bag for its long-lasting quality*”; “*I consider the purchase of this LB23 bag to be a sustainable purchase*”), using a 7-points Likert scale (1 = “Strongly disagree”, 7 = “Strongly agree”). To further investigate the characteristic of durability, respondents then replied to another question - retrieved at Stone-Romero et al. (1997) – weighed through a 2-items 7-points Semantic differential scale (“*Please indicate the extent to which you think this product is: 1 = “Durable”, 7 = “Non-durable”; 1 = “Reliable”, 7 = “Non-reliable”*”). Participants were finally asked to answer to a 6-items question adapted from Haws et al. (2014) on environmental concern – which was measured as a control variable, through a 7-points Likert scale (1 = “Strongly disagree”, 7 = “Strongly agree”), and then responded to four demographic questions assessing age, gender, education, and nationality.

## 3.2 Analysis and Results

### 3.2.2 Reliability analysis

Once having collected the data, a univariate descriptive analysis was carried out, as to test one variable at a time by not considering any effect within the variables. For the quantitative variables, measures of central tendency and variability were calculated, whereas for the qualitative variables, frequency has been analysed. For instance, for what regards the question “*How guilty would you feel about spending money on this bag?*”, namely the dependent variable – measured through a 7-points Likert scale with values ranging from 1 (“Not at all”) to 7 (“Extremely”), sample showcased an average of 3,32 (SD = 2.097; median = 3.00). Relatively to percentages, the most frequent choice was “Not at all” (28,5%), followed by rating 2 (18,4%). Instead, for what regards the value “Extremely”, it was only chosen by  $n = 12$  people (7,6%).

Furthermore, as to check the reliability of the items proposed, a reliability analysis was advanced by using the Cronbach’s Alpha index ( $\alpha$ ). Cronbach’s alpha is a measure of internal consistency, and the scales are considered to be reliable when  $\alpha$  value is  $\geq .7$ . In particular,  $\alpha$  needs to be comprised within these range of values:

- Construct is *insufficient*:  $0 \leq \alpha < .6$
- Construct is *discrete*:  $.6 \leq \alpha < .7$
- Construct is *high*:  $.7 \leq \alpha < .8$
- Construct is *optimal*:  $.8 \leq \alpha < 1$

For what regards the variables under study, reliability analysis was carried out for all of them, in order to evaluate the reliability of items’ components of each subscale.

First, the analysis involved the mediator, product durability evaluation, which was composed of two items, assessing supposed durability and reliability of product. The scale was found to be reliable, as  $\alpha = .905$ , which – according to the aforementioned list, is considered to be an excellent result.

Moving on to considering the second subscale, Sustainable Luxury Purchase (SLP – see Appendix 1), composed by three items assessing durability and sustainability of the product, it found to be reliable as well, as  $\alpha = .825$ , which is, again, an optimal value for Cronbach’s alpha.



Since there were more than two items composing the subscale, the importance of each item has been also evaluated by calculating the alpha value obtained after having deleted items in turn, as shown in the table below.

<b>Item-Total Statistics</b>				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
To what extent do you agree with these statements? - I bought this LB23 bag for its timeless style.	8,85	12,907	,640	,799
To what extent do you agree with these statements? - I bought this LB23 bag for its long-lasting quality.	8,79	11,886	,788	,656
To what extent do you agree with these statements? - I consider the purchase of this LB23 bag to be a sustainable purchase.	8,50	12,201	,628	,817

*Table 5 – Alpha values if items deleted (SLP)*

Indeed, as the alphas obtained after removing one item were all lower than .825, there was no need to exclude any of the items proposed, as Cronbach’s alpha was found to be sufficient for all of the scales. Considering the resulting alphas, removing one item would have been disadvantageous, as the scale would have lost reliability.

The last subscale under investigation was Environmental Concern, which was composed of six items evaluating such matter within the respondents of the survey. Results of the reliability analysis have demonstrated that this subscale was excellently reliable, as  $\alpha = .907$ .

Furthermore, this scale was subjected to the same analysis carried out for SLP. Therefore, as to evaluate whether it was necessary to remove any item or not, alpha values were again calculated after having removed one item at the time.

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
To what extent do you agree or disagree with the given statements: - It is important to me that the products I use do not harm the environment.	27,51	33,322	,622	,907
To what extent do you agree or disagree with the given statements: - I consider the potential environmental impact of my actions when making many decisions.	27,94	30,959	,810	,880
To what extent do you agree or disagree with the given statements: - My purchase habits are affected by my concern for our environment.	28,35	29,158	,808	,880
To what extent do you agree or disagree with the given statements: - I am concerned about wasting the resources of our planet.	27,64	31,391	,759	,888
To what extent do you agree or disagree with the given statements: - I would describe myself as environmentally responsible.	27,87	32,111	,719	,893
To what extent do you agree or disagree with the given statements: - I am willing to be inconvenienced in order to take actions that are more environmentally friendly.	27,94	31,627	,741	,890

*Table 6 – Alpha values if items deleted (Environmental Concern)*

Results have demonstrated that - even for the Environmental Concern scale - the alphas obtained after having removed one item at the time have prevented from excluding items from the scale.

### 3.2.4 Test analysis

An independent samples t-test was carried out in order to determine the effectiveness of the manipulation, indeed as to evaluate if there is a statistically significant difference in the mean of the dependent variable (guilt reduction) in comparison to the two stimuli proposed (sustainable cues absent vs. sustainable cues present).

Is it important to highlight that the two scenarios in this analysis were renamed as *Scenario\_CP* for cues present, and *Scenario\_CA* for cues absent.

Independent samples t-test is performed to compare average scores of a quantitative variable divided in two groups by a factor, indeed to verify if the two samples are different one another. It is based on the following hypotheses:

- H<sub>0</sub> (null hypothesis): the two groups display the same mean ( $\mu_{\text{Scenario\_CP}} = \mu_{\text{Scenario\_CA}}$ )
- H<sub>1</sub> (alternative hypothesis): there are statistically significant differences in the mean within the two groups ( $\mu_{\text{Scenario\_CP}} \neq \mu_{\text{Scenario\_CA}}$ )

As the null hypothesis of equal means requires to be rejected, the study proposes to accept the alternative hypothesis under the condition that means are significantly different. Therefore, prior to carrying out the independent samples t-test, a Levene's test has been conducted to test homogeneity of variances, so as to assess the assumption of equal variances ( $p > .05$ ) for the two groups.

Levene's test has shown that the hypothesis of homogeneity of variances had to be rejected ( $p = .003$ ;  $F = 9,427$ ), hence a robust version of the t-test has been used, in order to avoid incorrect results. The robust t-test rejects the null hypothesis of equal means across the two groups ( $p < .05$ ). Results have shown that there is a statistically significant difference (1.954) in the average scores.

<b>Group Statistics</b>					
	Scenario	N	Mean	Std. Deviation	Std. Error Mean
Please indicate the extent to which you agree with this question. - How guilty would you feel about spending money on this bag?	Scenario_CP	81	2,37	1,662	,185
	Scenario_CA	77	4,32	2,048	,233

**Table 7** – Comparison of mean scores in guilt reduction (*Scenario\_CP* vs *Scenario\_CA*)

Results of the t-test displayed that the manipulation was successful, as presence and absence of cues on luxury products displayed significant differences in the mean. In fact, considering samples' means, results have shown that Scenario\_CA average score is greater than Scenario\_CP. Respondents exposed to the presence of cues ( $M_{\text{Scenario\_CP}} = 2.37$ ;  $SD_{\text{Scenario\_CP}} = 1.662$ ) displayed significant differences with regards to those who were exposed to absence of cues ( $M_{\text{Scenario\_CA}} = 4.32$ ;  $SD_{\text{Scenario\_CA}} = 2.048$ ),  $p < .001$ . Continuing with the analysis, as to evaluate how meaningful the difference within the groups is, Cohen's d value has been calculated, which uses the pooled standard deviation. This index in absolute value is equal to 1.051, which means that the effect is great in size, thus the findings have practical significance.

Consequently, results imply that respondents who were exposed to the first condition display a higher reduction in their sense of guilt, as opposed to those exposed to the second condition, affirmation which is in line with the objective of the thesis.

### 3.2.6 Test analysis – 2

As to further investigate on the dependent variable of guilt reduction, an additional t-test was conducted to evaluate if there was a statistically significant difference in the guilt reduction scores divided for gender (males and females). To do so, the 3 respondents who have preferred not to showcase their gender within the demographic questions (see paragraph above) have been excluded from this analysis.

<b>Group Statistics</b>						
		Please indicate your gender.	N	Mean	Std. Deviation	Std. Error Mean
Please indicate the extent to which you agree with this question. - How guilty would you feel about spending money on this bag?	Male		39	3,00	2,103	,337
	Female		116	3,43	2,111	,196

*Table 8 – Comparison of mean scores in guilt reduction (Males vs Females)*

Results have shown that guilt about spending money on the product displayed in the scenarios has average values among the groups, which are very close to each other ( $M_{\text{Male}} = 3.00$ ;  $M_{\text{Female}} = 3.43$ ).

As to further investigate if this difference is found to be statistically significant or if it results by chance, an independent samples t-test was again conducted.

Again, prior to the t-test, Levene's test was conducted as to assess the null hypothesis of equality of variances. For what regards this analysis, there was no need to conduct a robust t-test, as the Levene's test accepts the null hypothesis ( $p = .803$ ), so equal variances across the groups can be assumed.

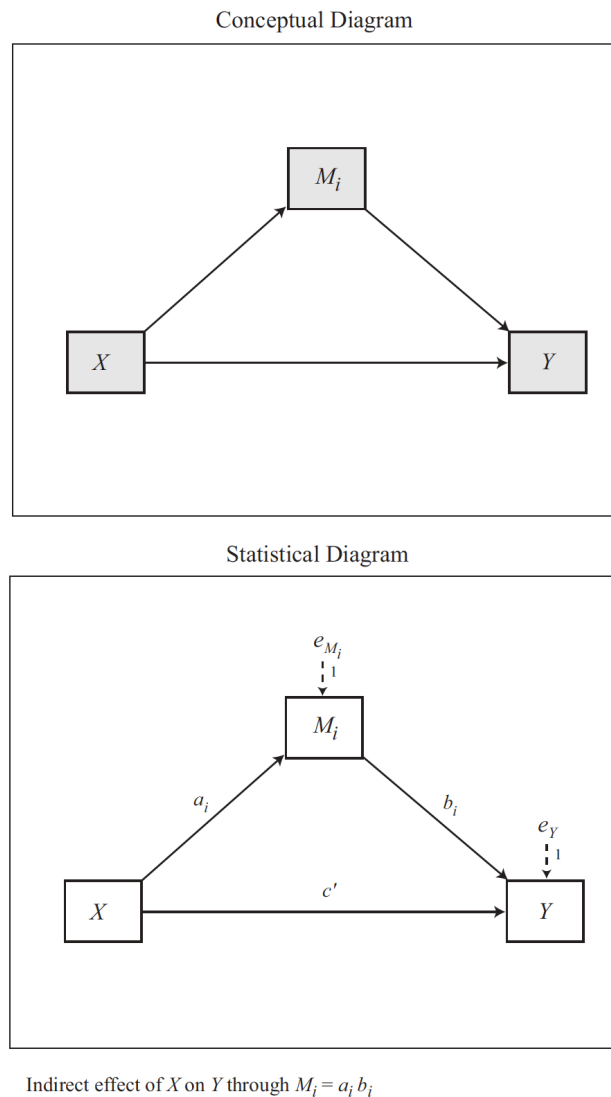
Instead, the t-test is found to be not significant at the level .05 ( $p = .271$ ), meaning that there is not a statistically significant difference between the mean score of the two groups.

### 3.2.6 Data analysis

After having conducted reliability analysis of the scales, along with the independent samples t-test, the study has proceeded with a mediation analysis, which could be either carried out by running multiple regressions – as described by Baron and Kenny approach (1986), or by using PROCESS – a modern approach which prevents the researcher from committing calculation errors.

Therefore, a mediation analysis was conducted by using PROCESS Model 4 (Hayes, 2013), in order to evaluate whether and how much of the effect of the independent variable on the dependent variable is mediated by a third one – namely, the mediator *product durability evaluation* (M). To do so, *presence vs absence of sustainable cues* (“Scenario” in the output – see Appendix 2) was assigned as independent variable, *guilt reduction* (“DV\_Guil”) as dependent variable, and *product durability evaluation* (“Prod\_dur”) as mediator. The aim of the analysis is to test the effect of cues on luxury products on guilt reduction, eventually mediated by product durability evaluation.

The mediator is calculated as the mean score for both of the items in the scale, as considered during the reliability analysis developed before.



**Figure 6: PROCESS Model 4**  
**Source:** Hayes, A. F. (2013). *Model templates for PROCESS for SPSS and SAS*

First step was to test H2a, namely to investigate whether Scenario (0 = CA, 1 = CP) could have an effect on product durability evaluation. When evaluating the effect of the independent variable on the mediator, results have shown that changing scenario – meaning adding cues – has a positive effect ( $b = 1.916$ ;  $se = .259$ ;  $t = 7,392$ ) on the estimated product durability evaluation, and the related effect is statistically significant ( $p < .001$ ).

As a consequence, results provide full support to both hypothesis H2a, as, in turn, the presence of sustainable cues have a significant positive effect of consumers’ overall product durability evaluation, as shown in the table below.

**OUTCOME VARIABLE: Prod\_dur**

*Model*

*Summary*

	R	R-sq	MSE	F	df1	df2	P
	,509	,259	2,653	54,640	1,000	156,000	,000

*Model*

	coeff	se	t	p	LLCI	ULCI
<i>constant</i>	3,448	,186	18,577	,000	3,081	3,815
<i>Scenario</i>	<b>1,916</b>	,259	7,392	<b>,000</b>	1,404	2,428

**Table 9 – Effect of IV on Mediator**

With regards to the test on the effects of the mediator and the independent variable on the dependent variable guilt reduction, results have shown that adding cues has a statistically significant ( $p < .05$ ) negative effect on guilt reduction: changing the scenario from CA to CP (respectively, from *Cues Absent* to *Cues Present*) reduces the estimated guilt reduction of -1.210. In addition, product durability evaluation has a statistically significant ( $p < .05$ ) negative effect of -.336, which is inversely proportional, meaning that one point higher in durability evaluation reduces the estimated guilt reduction of -.336.

Therefore, this results again provide full support to H2b, as to a higher product durability evaluation corresponds a higher reduction in consumers' sense of guilt, and to H1, as the presence of sustainable cues result in a higher reduction in consumers' sense of guilt (**Table 9**).

**OUTCOME VARIABLE: DV\_Guil**

*Model*

*Summary*

	R	R-sq	MSE	F	df1	df2	P
	,535	,286	3,181	31,054	2,000	155,000	,000

*Model*

	coeff	se	t	p	LLCI	ULCI
<i>constant</i>	5,484	,364	15,055	,000	4,764	6,204
<i>Scenario</i>	<b>-1,310</b>	,330	-3,972	<b>,000</b>	-1,962	-,658
<i>Prod_dur</i>	<b>-,336</b>	,088	-3,835	<b>,000</b>	-,509	-,163

**Table 9 – Effect of IV and Mediator on DV**

Finally, as to assess the total effect, a new model has been constructed by using only the independent variable and the dependent variable. The total effect of the scenario is -1.954, and it is found to be statistically significant ( $p < .05$ ).

**OUTCOME VARIABLE: DV\_Guil**

*Model*

*Summary*

	R	R-sq	MSE	F	df1	df2	P
	,467	,218	3,460	43,573	1,000	156,000	,000

*Model*

	coeff	se	t	p	LLCI	ULCI
<i>constant</i>	4,325	,212	20,401	,000	3,906	4,743
<i>Scenario</i>	<b>-1,954</b>	,296	-6,601	<b>,000</b>	-2,539	-1,369

**Table 10** – Total Effect Model (IV and DV)

In addition, the total effect of changing scenarios on guilt reduction is negative (therefore, adding cues, the estimated guilt is reduced) and statistically significant. A large portion of the total effect is direct, equal to -1.310, and statistically significant. The remaining and indirect part is also statistically significant and negative, and it corresponds to the 32,96% of the total effect, which is calculated as indirect effect/total effect (-.6,44/-1.954). Consequently, findings have shown again full support to H1, as respondents exposed to presence of sustainable cues have resulted in having higher reduction in their sense of guilt ( $b = -.644$ ;  $se = .330$ ;  $t = -3.972$ ;  $p < .05$ ).

*Total effect of X on Y*

	Effect	se	t	p	LLCI	ULCI
	-1,954	,296	-6,601	,000	-2,539	-1,369

*Direct effect of X on Y*

	Effect	se	t	p	LLCI	ULCI
	<b>-1,310</b>	,330	-3,972	,000	-1,962	-,658

*Indirect effect(s) of X on Y*

	Effect	BootSE	BootLLCI	BootULCI
<i>Prod_dur</i>	<b>-,644</b>	,227	-1,142	-,244

**Table 11** – Total, Direct and Indirect Effects of X on Y



## CHAPTER 4: GENERAL DISCUSSION

### 4.1 Theoretical contributions

Considering the results provided by this analysis, the thesis at stake provides useful insights with regards to extant research. In particular, it contributes to both literature concerning consumer behaviour and decision-making, as its findings could be applied to several fields. In fact, as the main purpose of the study is to fulfil a plausible research gap regarding fashion sustainability and consequent effects on consumers' psychology, this study grants a stable grounding for drawing consistent and concrete conclusions which definitely look back to existing literature.

First of all, the analysis allows to contribute to the stream of research on the effect of sustainable cues on decision-making during the purchase phase. In particular, findings have not only reconfirmed the efficacy of sustainable cues-utilization, as previously stated by Fani et al. (2022), but have yet smoothed consumers' scepticism towards sustainable fashion practices. Namely, cues' salience (Romaniuk and Sharp, 2004) is found to be in turn successful, having had an important role in shaping respondents' inferences.

With regards to the direct effect, thus evaluating whether sustainable cues could reduce consumers' sense of guilt, results have not only enriched the analysis carried out by Keinan et al. (2016) on functional alibi, but have also contributed to enlarge the acknowledgements on the relationship established within guilt and luxury purchases. In fact, according to results, participants who were exposed to sustainable cues were found to have higher reduction in their sense of guilt, in contrast to those who were presented with just the luxury product (without any cues). This provides further support to the theory of functional alibi, as again the addition of features – whether utilitarian or sustainable, as the case at stake - on a luxury product was found to be extremely effective in steering consumers' overall evaluation.

Furthermore, considering that the thesis moves from the concept of product durability neglect (Sun et al., 2021), it is safe to say that also the mediation analysis, evaluating the role of product durability evaluation, had the desired outcome and could therefore contribute to extant literature. Namely, as stated by Aliyev et al. (2019), product durability has positively influenced consumers' environmentally-conscious buying intentions (and viceversa): respondents who viewed sustainable cues were more prone to value product durability higher and more relevant in their fictitious purchasing scenario.

In conclusion, this research yielded full support to all the hypothesis proposed. What results from the analysis is that consumers could be efficiently guided throughout their customer journey, from pre-purchase to post-purchase, thanks to a proper usage of nudging tools (such as sustainable cues) which could guarantee brands' desired outcome, ranging from recognition and recall to the ultimate aim of selling.

## **4.2 Managerial implications**

Findings of the analysis provide also new strategic opportunities for fashion marketers.

Though the study as stake is supported by solid and valid literature, there is no research evidence of the connection within sustainability, luxury industry and consumers' psychology, despite being all strictly connected and adjacent one another.

Specifically, understanding consumers' perceptions with regards to the purchasing experience is of central focus, especially because luxury practitioners could intervene in their decision-making with simple but effective actions. In fact, by focusing on consumers' psychology - for instance, by operating on both their emotions and their level of attention during decision-making, brands themselves could play an important role in shaping consumers' preferences.

As sustainable fashion is continuing to gather more attention, especially in relation to the contrast between fast fashion and luxury, and considering consumers' dichotomous attitude (e.g., the mentioned attitude-behaviour gap), fashion practitioners need to face this new challenge with meticulous regard.

Findings of the thesis indicate that increasing the salience of certain features (i.e., sustainable cues) helps the consumer in evaluating the product under the light of sustainability, and this could, in turn, reduce their sense of guilt. Therefore, plausible important implications for luxury managers and marketers could be drawn out, as not only they could steer their communication strategy in order to complementarily influence consumers, but could also reduce the biased evaluations in post-purchase phase which affect luxury consumption.

In addition, stemming from behavioural economics, findings have proven the effectiveness of nudging techniques with regards to consumers' psychology. By establishing a sensitive bond with the consumer, intentionally based on transparency and clarity, marketers could both reinforce brand loyalty and increase sales, as the negative prejudices to which the brands are subjected to are almost totally discarded.

### **4.3 Limits and directions for future research**

Having considered both the theoretical contributions and the managerial implications of the thesis, it is now important to evaluate its limitations and plausible directions for future research.

First of all, having chosen to use just two stimuli has prevented from granting a complete involvement of respondents in the study, and having selected just one mediator in the framework has made the research less “intricate”. Adding more than one stimulus and mediator to the model could be extremely useful, especially in evaluating the connections within consumers’ psychology and purchasing behaviour, investigated in the research.

Secondly, though the samples’ ratio was almost equally balanced, the usage of the sampling technique implied in the study has not been advantageous. In fact, the recruitment of respondents has happened with the so-called “snowball sampling”, which, on the one hand, is cost-free and permits to achieve a great number of participants, but, on the other, suffers several issues, such as community bias. Future research could focus on the usage of more precise and representative sample techniques, as to avoid incorrect and biased results.

Though the thesis has also involved a study on the impact of one demographic variable on guilt reduction, it has been limited just to gender, leaving the latter behind. For this reason, it would have been interesting to analyse whether there were differences within guilt reduction scores in relation to age, or to investigate the relationship within demographic variables and the psychographic one of environmental concern.

In addition, future research could examine the mediating role of another variable, as to evaluate again the effect of sustainable cues, as research has given several causes for reflection which could be tied to the direct effect analysed.

Lastly, the sustainable cues in the study were just of one “category”, as they were added to the luxury product in a label form. Having considered that cues could be displayed in several forms, future studies could evaluate the effect of these different forms on consumers’ guilt reduction.

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APPENDIX

**Appendix 1 – Design and Measures**

*Scales and Items*

Scales	Items
<p><b>Guilt reduction</b></p> <p>7-points Likert scale (Values from 1 = “Not at all” to 7 = “Extremely”).</p> <p>Adapted from: Lee-Wingate, S. N., and Corfman, K. P. (2010). A little something for me and maybe for you, too: promotions that relieve guilt. <i>Marketing Letters</i>, 21, 385-395.</p>	<p>How <i>guilty</i> would <i>you</i> feel about spending money on <i>this bag</i>?</p> <ol style="list-style-type: none"> <li>1. Not guilty at all</li> <li>2. Low guilt</li> <li>3. Slightly guilty</li> <li>4. Neutral</li> <li>5. Moderately guilty</li> <li>6. Very guilty</li> <li>7. Extremely guilty</li> </ol>
<p><b>Product Durability Evaluation</b></p> <p>3-items 7-points Likert scale (Values from 1 = “Strongly disagree” to 7 = “Strongly agree”)</p> <p>Adapted from: Ki, C., and Kim, Y. K. (2016). Sustainable luxury fashion consumption and the moderating role of guilt. <i>Fashion, Industry and Education</i>, 14(1), 18-30.</p> <hr/> <p>2-items 7-points Semantic differential scale (Values from 1 = “Non-durable” “Non-reliable” to 7 = “Durable” “Reliable”)</p> <p>Retrieved at: Stone-Romero, E. F., Stone, D. L., and Grewal, D. (1997). Development of a multidimensional measure of perceived product quality. <i>Journal of quality management</i>, 2(1), 87-111.</p>	<p>Sustainable Luxury Purchase (SLP): To what extent do you agree with these statements?</p> <ol style="list-style-type: none"> <li>1. I bought this LB23 bag for its timeless style.</li> <li>2. I bought this LB23 bag for its long-lasting quality.</li> <li>3. I consider the purchase of this LB23 bag to be a sustainable purchase.</li> </ol> <hr/> <p>Please, indicate the extent to which you think this product is:</p> <ol style="list-style-type: none"> <li>1. Durable / Non-durable</li> <li>2. Reliable / Non-reliable</li> </ol>



<p><b>Environmental Concern</b></p> <p>6-items 7-points Likert scale (Values from 1 = “Strongly disagree” to 7 = “Strongly agree”).</p> <p>Adapted from: Haws, K. L., Winterich, K. P., and Naylor, R. W. (2014). Seeing the world through GREEN-tinted glasses: Green consumption values and responses to environmentally friendly products. <i>Journal of consumer psychology</i>, 24(3), 336-354.</p>	<p>To what extent do you agree or disagree with the given statements:</p> <ol style="list-style-type: none"> <li>1. It is important to me that the products I use do not harm the environment.</li> <li>2. I consider the potential environmental impact of my actions when making many decisions.</li> <li>3. My purchase habits are affected by my concern for our environment.</li> <li>4. I am concerned about wasting the resources of our planet.</li> <li>5. I would describe myself as environmentally responsible.</li> <li>6. I am willing to be inconvenienced in order to take actions that are more environmentally friendly.</li> </ol>
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## Appendix 2 – SPSS Output

### Descriptive statistics

#### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age	158	18,00	73,00	45,4873	16,20951
Valid N (listwise)	158				

*Output 1 –SPSS Descriptives: Age*

#### Statistics

Please indicate your gender.

N	Valid	158
	Missing	0
Mean		1,79
Median		2,00
Std. Deviation		,530
Range		3
Minimum		1
Maximum		4

*Output 2 –SPSS Descriptives: Gender*

#### Please indicate your gender.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	39	24,7	24,7	24,7
	Female	116	73,4	73,4	98,1
	Prefer not to say	3	1,9	1,9	100,0
Total		158	100,0	100,0	

*Output 3 –SPSS Frequencies: Gender*

### Statistics

Please indicate your highest level of education (including what you are currently pursuing).

Please indicate your nationality.

N	Valid	158	158
	Missing	0	0
Mean			2,03
Median			2,00
Std. Deviation			1,012
Range			3
Minimum			1
Maximum			4

*Output 4 –SPSS Descriptives: Nationality*

### Please indicate your nationality.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	French	1	,6	,6	,6
	Italian	156	98,7	98,7	99,4
	Uruguay	1	,6	,6	100,0
	Total	158	100,0	100,0	

*Output 5 –SPSS Frequencies: Nationality*

### Please indicate your highest level of education (including what you are currently pursuing).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	67	42,4	42,4	42,4
	Bachelor's Degree or equivalent	30	19,0	19,0	61,4
	Master's Degree or equivalent	50	31,6	31,6	93,0
	Ph.D. or equivalent	11	7,0	7,0	100,0
	Total	158	100,0	100,0	

*Output 6 –SPSS Frequencies: Education*

### Statistics

	To what extent do you agree or disagree with the given statements : - It is important to me that the products I use do not harm the environment.	To what extent do you agree or disagree with the given statements: - I consider the potential environmental impact of my actions when making many decisions.	To what extent do you agree or disagree with the given statements: - My purchase habits are affected by my concern for our environment.	To what extent do you agree or disagree with the given statements: - I am concerned about wasting the resources of our planet.	To what extent do you agree or disagree with the given statements: - I would describe myself as environmentally responsible.	To what extent do you agree or disagree with the given statements: - I am willing to be inconvenienced in order to take actions that are more environmentally friendly.
N	Valid	158	158	158	158	158
	Missing	0	0	0	0	0
Mean		5,94	5,51	5,10	5,81	5,58
Median		6,00	6,00	5,00	6,00	6,00
Std. Deviation		1,308	1,305	1,494	1,327	1,303
Range		6	6	6	6	6
Minimum		1	1	1	1	1
Maximum		7	7	7	7	7

**Output 7** –SPSS Descriptives: Environmental Concern

**To what extent do you agree or disagree with the given statements: - It is important to me that the products I use do not harm the environment.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree (1)	2	1,3	1,3	1,3
	2	2	1,3	1,3	2,5
	3	4	2,5	2,5	5,1
	4	14	8,9	8,9	13,9
	5	23	14,6	14,6	28,5
	6	41	25,9	25,9	54,4
	Strongly agree (7)	72	45,6	45,6	100,0
	Total	158	100,0	100,0	

*Output 8 –SPSS Frequencies: Environmental Concern (1)*

**To what extent do you agree or disagree with the given statements: - I consider the potential environmental impact of my actions when making many decisions.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree (1)	1	,6	,6	,6
	2	3	1,9	1,9	2,5
	3	7	4,4	4,4	7,0
	4	22	13,9	13,9	20,9
	5	39	24,7	24,7	45,6
	6	43	27,2	27,2	72,8
	Strongly agree (7)	43	27,2	27,2	100,0
	Total	158	100,0	100,0	

*Output 9 –SPSS Frequencies: Environmental Concern (2)*

**To what extent do you agree or disagree with the given statements: - My purchase habits are affected by my concern for our environment.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree (1)	5	3,2	3,2	3,2
	2	4	2,5	2,5	5,7
	3	12	7,6	7,6	13,3
	4	27	17,1	17,1	30,4
	5	42	26,6	26,6	57,0
	6	37	23,4	23,4	80,4
	Strongly agree (7)	31	19,6	19,6	100,0
	Total	158	100,0	100,0	

*Output 10 –SPSS Frequencies: Environmental Concern (3)*

**To what extent do you agree or disagree with the given statements: - I am concerned about wasting the resources of our planet.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree (1)	1	,6	,6	,6
	2	4	2,5	2,5	3,2
	3	4	2,5	2,5	5,7
	4	18	11,4	11,4	17,1
	5	23	14,6	14,6	31,6
	6	46	29,1	29,1	60,8
	Strongly agree (7)	62	39,2	39,2	100,0
	Total	158	100,0	100,0	

*Output 11 –SPSS Frequencies: Environmental Concern (4)*

**To what extent do you agree or disagree with the given statements: - I would describe myself as environmentally responsible.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree (1)	1	,6	,6	,6
	2	2	1,3	1,3	1,9
	3	8	5,1	5,1	7,0
	4	21	13,3	13,3	20,3
	5	35	22,2	22,2	42,4
	6	44	27,8	27,8	70,3
	Strongly agree (7)	47	29,7	29,7	100,0
	Total	158	100,0	100,0	

*Output 12 –SPSS Frequencies: Environmental Concern (5)*

**To what extent do you agree or disagree with the given statements: - I am willing to be inconvenienced in order to take actions that are more environmentally friendly.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree (1)	1	,6	,6	,6
	2	4	2,5	2,5	3,2
	3	9	5,7	5,7	8,9
	4	17	10,8	10,8	19,6
	5	35	22,2	22,2	41,8
	6	52	32,9	32,9	74,7
	Strongly agree (7)	40	25,3	25,3	100,0
	Total	158	100,0	100,0	

*Output 13 –SPSS Frequencies: Environmental Concern (6)*

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
To what extent do you agree or disagree with the given statements: - It is important to me that the products I use do not harm the environment.	158	1	7	5,94	1,308
To what extent do you agree or disagree with the given statements: - I consider the potential environmental impact of my actions when making many decisions.	158	1	7	5,51	1,305
To what extent do you agree or disagree with the given statements: - My purchase habits are affected by my concern for our environment.	158	1	7	5,10	1,494
To what extent do you agree or disagree with the given statements: - I am concerned about wasting the resources of our planet.	158	1	7	5,81	1,327
To what extent do you agree or disagree with the given statements: - I would describe myself as environmentally responsible.	158	1	7	5,58	1,303
To what extent do you agree or disagree with the given statements: - I am willing to be inconvenienced in order to take actions that are more environmentally friendly.	158	1	7	5,51	1,325
Valid N (listwise)	158				

*Output 14 –SPSS Descriptives: Environmental Concern*



### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Please indicate the extent to which you agree with this question. - How guilty would you feel about spending money on this bag?	158	1	7	3,32	2,097
Valid N (listwise)	158				

*Output 15 –SPSS Descriptives: Guilt Reduction*

**Please indicate the extent to which you agree with this question. - How guilty would you feel about spending money on this bag?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all (1)	45	28,5	28,5	28,5
	2	29	18,4	18,4	46,8
	3	17	10,8	10,8	57,6
	4	13	8,2	8,2	65,8
	5	17	10,8	10,8	76,6
	6	25	15,8	15,8	92,4
	Extremely (7)	12	7,6	7,6	100,0
	Total	158	100,0	100,0	

*Output 16 –SPSS Frequencies: Guilt Reduction*

### Statistics

Please, indicate the extent to which you think this product is: - Non-durable (1): Durable (7)      Please, indicate the extent to which you think this product is: - Non-reliable (1): Reliable (7)

	Valid		
		Missing	
N		158	158
Mean		4,35	4,51
Median		5,00	5,00
Std. Deviation		1,997	1,951
Range		6	6
Minimum		1	1
Maximum		7	7

*Output 17 –SPSS Descriptives: Product Durability Evaluation*

**Please, indicate the extent to which you think this product is: -  
Non-durable (1):Durable (7)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	15	9,5	9,5	9,5
	2	24	15,2	15,2	24,7
	3	18	11,4	11,4	36,1
	4	20	12,7	12,7	48,7
	5	24	15,2	15,2	63,9
	6	28	17,7	17,7	81,6
	7	29	18,4	18,4	100,0
	Total	158	100,0	100,0	

*Output 18 –SPSS Frequencies: Product Durability Evaluation (1)*

**Please, indicate the extent to which you think this product is: - Non-reliable  
(1):Reliable (7)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	14	8,9	8,9	8,9
	2	20	12,7	12,7	21,5
	3	13	8,2	8,2	29,7
	4	27	17,1	17,1	46,8
	5	24	15,2	15,2	62,0
	6	29	18,4	18,4	80,4
	7	31	19,6	19,6	100,0
	Total	158	100,0	100,0	

*Output 19 –SPSS Frequencies: Product Durability Evaluation (2)*

**Statistics**

		To what extent do you agree with these statements? - I bought this LB23 bag for its timeless style.	To what extent do you agree with these statements? - I bought this LB23 bag for its long-lasting quality.	To what extent do you agree with these statements? - I consider the purchase of this LB23 bag to be a sustainable purchase.
N	Valid	158	158	158
	Missing	0	0	0
Mean		4,22	4,28	4,57
Median		4,50	4,00	5,00
Std. Deviation		1,931	1,868	2,064
Range		6	6	6
Minimum		1	1	1
Maximum		7	7	7

*Output 20 – SPSS Descriptives: Sustainable Luxury Purchase*

**To what extent do you agree with these statements? - I bought this LB23 bag for its timeless style.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree (1)	19	12,0	12,0	12,0
	2	21	13,3	13,3	25,3
	3	14	8,9	8,9	34,2
	4	25	15,8	15,8	50,0
	5	29	18,4	18,4	68,4
	6	31	19,6	19,6	88,0
	Strongly agree (7)	19	12,0	12,0	100,0
	Total	158	100,0	100,0	

*Output 21 – SPSS Frequencies: Sustainable Luxury Purchase (1)*

**To what extent do you agree with these statements? - I bought this LB23 bag for its long-lasting quality.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree (1)	17	10,8	10,8	10,8
	2	18	11,4	11,4	22,2
	3	12	7,6	7,6	29,7
	4	39	24,7	24,7	54,4
	5	20	12,7	12,7	67,1
	6	33	20,9	20,9	88,0
	Strongly agree (7)	19	12,0	12,0	100,0
	Total	158	100,0	100,0	

*Output 22 –SPSS Frequencies: Sustainable Luxury Purchase (2)*

**To what extent do you agree with these statements? - I consider the purchase of this LB23 bag to be a sustainable purchase.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree (1)	18	11,4	11,4	11,4
	2	17	10,8	10,8	22,2
	3	14	8,9	8,9	31,0
	4	23	14,6	14,6	45,6
	5	16	10,1	10,1	55,7
	6	34	21,5	21,5	77,2
	Strongly agree (7)	36	22,8	22,8	100,0
	Total	158	100,0	100,0	

*Output 23 –SPSS Frequencies: Sustainable Luxury Purchase (3)*

**Product Durability Evaluation**

**Reliability Statistics**

Cronbach's Alpha	N of Items
,905	2

**Output 24** –SPSS Reliability Analysis: Product Durability Evaluation

**Sustainable Luxury Purchase**

**Reliability Statistics**

Cronbach's Alpha	N of Items
,825	3

**Output 25** –SPSS Reliability Analysis: Sustainable Luxury Purchase

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
To what extent do you agree with these statements? - I bought this LB23 bag for its timeless style.	8,85	12,907	,640	,799
To what extent do you agree with these statements? - I bought this LB23 bag for its long-lasting quality.	8,79	11,886	,788	,656
To what extent do you agree with these statements? - I consider the purchase of this LB23 bag to be a sustainable purchase.	8,50	12,201	,628	,817

**Output 26** –SPSS Reliability Analysis: Sustainable Luxury Purchase (Cronbach's Alpha)

## *Environmental Concern*

### **Reliability Statistics**

Cronbach's Alpha	N of Items
,907	6

*Output 27 –SPSS Reliability Analysis: Environmental Concern*

### **Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
To what extent do you agree or disagree with the given statements: - It is important to me that the products I use do not harm the environment.	27,51	33,322	,622	,907
To what extent do you agree or disagree with the given statements: - I consider the potential environmental impact of my actions when making many decisions.	27,94	30,959	,810	,880
To what extent do you agree or disagree with the given statements: - My purchase habits are affected by my concern for our environment.	28,35	29,158	,808	,880
To what extent do you agree or disagree with the given statements: - I am concerned about wasting the resources of our planet.	27,64	31,391	,759	,888
To what extent do you agree or disagree with the given statements: - I would describe myself as environmentally responsible.	27,87	32,111	,719	,893

To what extent do you agree or disagree with the given statements: - I am willing to be inconvenienced in order to take actions that are more environmentally friendly.	27,94	31,627	,741	,890
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**Output 28** –SPSS Reliability Analysis: Environmental Concern (Cronbach's Alpha)

*Independent sample t-tests*

***Guilt reduction - Scenario***

**Group Statistics**

	Scenario	N	Mean	Std. Deviation	Std. Error
					Mean
Please indicate the extent to which you agree with this question. - How guilty would you feel about spending money on this bag?	Scenario_CP	81	2,37	1,662	,185
	Scenario_CA	77	4,32	2,048	,233

**Output 29** –SPSS Descriptive Statistics by Groups (Compare Means): Guilt Reduction - Scenario

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	Lower	Upper
						One-Sided p	Two-Sided p				
Please indicate the extent to which you agree with this question. - How guilty would you feel about spending money on this bag?	Equal variances assumed	9,427	,003	-6,601	156	<,001	<,001	-1,954	,296	-2,539	-1,369
	Equal variances not assumed			-6,566	146,400	<,001	<,001	-1,954	,298	-2,542	-1,366

**Output 30** –SPSS Independent Samples T-Test: Levene's Test (Guilt Reduction – Scenario)



### Independent Samples Effect Sizes

		Standardizer <sup>a</sup>	Point Estimate	95% Confidence Interval	
				Lower	Upper
Please indicate the extent to which you agree with this question. - How guilty would you feel about spending money on this bag?	Cohen's d	1,860	-1,051	-1,382	-,716
	Hedges' correction	1,869	-1,046	-1,375	-,713
	Glass's delta	2,048	-,954	-1,298	-,605

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control group.

**Output 31** –SPSS Independent Samples T-Test: Effect Sizes

### Guilt reduction – Gender

#### Group Statistics

Please indicate the extent to which you agree with this question. - How guilty would you feel about spending money on this bag?	Please indicate your gender.		N	Mean	Std. Deviation	Std. Error Mean
	Male	Female				
	Male		39	3,00	2,103	,337
	Female		116	3,43	2,111	,196

**Output 32** –SPSS Descriptive Statistics by Groups (Compare Means): Guilt Reduction - Gender

### Independent Samples Test

Levene's  
Test for  
Equality of  
Variances

t-test for Equality of Means

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Significance One-Sided p	Significance Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Please indicate the extent to which you agree with this question. - How guilty would you feel about spending money on this bag?	Equal variances assumed	,063	,803	-1,104	153	,136	,271	-,431	,390	-1,202	,340
	Equal variances not assumed			-1,106	65,628	,136	,273	-,431	,390	-1,209	,347

**Output 33** –SPSS Independent Samples T-Test: Levene's Test (Guilt Reduction – Gender)

*Mediation analysis – Process Model 4*

Run MATRIX procedure:

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

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

\*\*\*\*\*

Model: 4  
 Y: DV\_\_Guil  
 X: Scenario  
 M: Prod\_dur

Sample  
 Size: 158

\*\*\*\*\*

OUTCOME VARIABLE:  
 Prod\_dur

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	,509	,259	2,653	54,640	1,000	156,000	,000

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,448	,186	18,577	,000	3,081	3,815
Scenario	1,916	,259	7,392	,000	1,404	2,428

\*\*\*\*\*

OUTCOME VARIABLE:  
 DV\_\_Guil

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	,535	,286	3,181	31,054	2,000	155,000	,000

Model

	coeff	se	t	p	LLCI	ULCI
constant	5,484	,364	15,055	,000	4,764	6,204
Scenario	-1,310	,330	-3,972	,000	-1,962	-,658
Prod_dur	-,336	,088	-3,835	,000	-,509	-,163

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

OUTCOME VARIABLE:  
 DV\_\_Guil

Model Summary

R	R-sq	MSE	F	df1	df2	p
,467	,218	3,460	43,573	1,000	156,000	,000

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,325	,212	20,401	,000	3,906	4,743
Scenario	-1,954	,296	-6,601	,000	-2,539	-1,369

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

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI
-1,954	,296	-6,601	,000	-2,539	-1,369

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
-1,310	,330	-3,972	,000	-1,962	-,658

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
Prod_dur	-,644	,227	-1,142	-,244

\*\*\*\*\* 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

WARNING: Variables names longer than eight characters can produce incorrect output when some variables in the data file have the same first eight characters. Shorter variable names are recommended. By using this output, you are accepting all risk and consequences of interpreting or reporting results that may be incorrect.

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

