Unlocking Trust in Luxury: Examining the Role of Supply Chain Transparency & Sustainability and Luxury Accessibility

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Dissertation written under the supervision of Professor Paulo Romeiro

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ABSTRACT

Title: Unlocking Trust in Luxury: Examining the Role of Supply Chain Transparency & Sustainability and Luxury Accessibility

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This study investigates the impact of supply chain transparency and sustainability on brand trust within the luxury industry, focusing on the moderating effect of two distinct luxury product levels: accessible and inaccessible. With the rise in consumer demand for ethical and sustainable business practices, particularly from Millennials and Generation Z, luxury brands face growing pressure to improve transparency and sustainability in their supply chains. Although existing literature emphasizes the importance of such supply chain practices in building brand trust, this study addresses a gap by examining their influence in the luxury sector. Through the distribution of an online survey and quantitative data analysis, this research finds that fostering brand trust in the luxury context is not significantly determined by either supply chain transparency or sustainability. Furthermore, whereas brand trust is higher for accessible luxury products than inaccessible ones, the relationship between supply chain practices and brand trust is not significantly moderated by the luxury level. These findings challenge the current literature, suggesting that in the luxury sector, other factors may be more critical for the cultivation of brand trust, such as brand prestige and heritage. This work's findings carry interesting insights for luxury brand managers, implying that despite supply chain transparency and sustainability remaining valuable for corporate social responsibility and regulatory compliance, they may not be the main drivers of trust for luxury brands. Further investigation is required to understand how supply chain practices and luxury segmentation can, with other factors, regulate luxury brand trust.

Keywords: Brand Trust, Luxury Level, Supply Chain Transparency, Supply Chain Sustainability

SUMÁRIO

Título: Desbloquear a Confiança no Luxo: Examinando o Papel da Transparência e Sustentabilidade na Cadeia de Abastecimento e a Acessibilidade ao Luxo

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Este estudo investiga o impacto da transparência e da sustentabilidade na cadeia de abastecimento sobre a confiança na marca no setor do luxo, com foco no efeito moderador de dois níveis distintos de produtos de luxo: acessível e inacessível. Com o aumento da procura dos consumidores por práticas empresariais éticas e sustentáveis, especialmente entre Millennials e Geração Z, as marcas de luxo enfrentam crescente pressão para melhorar a transparência e sustentabilidade nas suas cadeias de abastecimento. Embora a literatura existente sublinhe a importância dessas práticas na construção da confiança na marca, este estudo aborda uma lacuna ao examinar a sua influência no setor do luxo. Através de um inquérito online e análise quantitativa de dados, esta investigação conclui que a confiança na marca no contexto do luxo não é significativamente determinada pela transparência ou sustentabilidade da cadeia de abastecimento. Além disso, embora a confiança na marca seja maior para produtos de luxo acessíveis do que para os inacessíveis, a relação entre as práticas da cadeia de abastecimento e a confiança na marca não é significativamente moderada pelo nível de luxo. Estes resultados desafiam a literatura existente, sugerindo que, no setor do luxo, outros fatores, como o prestígio e a herança da marca, podem ser mais críticos para a construção da confiança. As conclusões deste trabalho sugerem que, apesar de a transparência e a sustentabilidade na cadeia de abastecimento serem valiosas para a responsabilidade social e a conformidade regulatória, podem não ser os principais fatores de confiança nas marcas de luxo.

Palavras-Chave: Confiança na Marca, Nível de Luxo, Transparência na Cadeia de Abastecimento, Sustentabilidade na Cadeia de Abastecimento

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CHAPTER 1: INTRODUCTION

1.1 Problem statement

Concerns about environmental impact, fair trade, and human rights have been growing considerably on the consumer side, especially for Millennials and Generation Z, who have been pressuring large corporations to take a stand on this matter. These consumers tend to look for products that are sustainable and ethical, and their desire for transparency along the supply chain is growing (Su et al., 2019; Gazzola et al., 2017). Millennials are much more socially conscious than previous generations and are less likely to purchase from brands that do not showcase these values (Nowak et al., 2006). According to Forbes (Greg Petro, 2021), 62% of Generation Z show a preference for purchasing sustainable brands and are willing to pay a premium for ethically produced products. Consequently, companies are starting to strive to respond to these consumers' concerns, implementing more transparency for their products, and disclosing actions related to sustainability.

Although supply chain transparency and supply chain sustainability are not the same, they usually go hand in hand. The concept of traceability for sustainability broadens the vision of traceability within the supply chain, providing not only efficiency at the economic and operational level but also at the social and environmental sustainability level (Garcia-Torres et al., 2019). The absence or lack of full information on traceability has resulted in several social and environmental sustainability scandals (Busse et al., 2017), which has highlighted the importance of transforming supply chains into more transparent and sustainable systems (Closs et al., 2011). Today, transparency and sustainability are a requirement for most industries, not just a "nice-to-have", and it is ever most imperative to have more information on what the perception of consumers on certain products can be, such as brand trust, in situations where transparency and/or sustainability practices are disclosed versus when they are not.

The luxury industry is an example. It has experienced tremendous growth in recent years (D'Arpizio et al., 2024), and marketing luxury products is a challenge that results in an increased importance of understanding the impact that certain factors can have on the trust that consumers place in luxury brands. One of the most interesting factors to study that can impact brand trust is supply chain transparency and sustainability. Although there has been an increasing emphasis on this topic in luxury brand management, with major luxury groups taking a stand through the implementation of sustainability programs and policies, not many studies

about the impact of supply chain transparency were found for the luxury industry; research on sustainable luxury is underdeveloped (Athwal et al., 2019). Also, a gap remains when it comes to understanding how supply chain transparency and sustainability impact trust in luxury brands in terms of the products' accessibility, particularly De Barnier et al.'s (2012) three levels of luxury accessibility: accessible, intermediate, and inaccessible. The present work seeks to address this gap by studying the impact of supply chain transparency and sustainability on the trust of luxury brands, analyzing the moderating effect of two of the three levels of luxury products: accessible and inaccessible. The results can enhance an understanding of consumer perceptions and provide important insights for strategy building when managing brand trust in the luxury market.

1.2 Relevance

Due to the challenge of managing the paradoxical nature of luxury brands, since these need to manage a "gap" between high visibility and awareness, but restricted access and low penetration (J. N. Kapferer, 2012), knowing how to market luxury products is a topic of great interest. Moreover, the recent impressive growth and influence of this industry (D'Arpizio et al., 2024) makes it even more important to investigate the interplay of factors that can impact how these brands are perceived by consumers. One metric that significantly influences purchasing behavior is brand trust (Le et al., 2020).

Many organizations are constantly under pressure to disclose information about their operations and products in a detailed and accurate way, which makes it ever most important to understand the complex nature of supply chain transparency (Montecchi et al., 2021). The amount of research on supply chain management, particularly in transparency and sustainability, has been growing significantly, which represents a signal of its current importance (Ashby et al., 2012). Also, consumers' rise in interest in matters concerning transparency of big corporations and well-known brands regarding their impact on the environment and society are consequences of an increase in sustainability awareness, and this must be taken into consideration when managing luxury brands: it is crucial to make sure that the sustainability strategy is aligned with the fundamental nature of luxury, which involves heritage, quality, longevity, and timelessness (Athwal et al., 2019). Since this industry plays such a crucial role in today's global market, it consequently raises the potential for luxury brands to create sustainability standards that other

players in the industry can follow, which is something that big luxury group Kering has been trying to achieve (Morhart et al., 2020).

One of the suggested questions for future research on supply chain transparency and sustainability found in Montecchi et al.'s (2021) review is "How does the transparency of sustainable supply chain practices influence customers' attitudes and behaviors?". In this work, the impact of supply chain transparency and sustainability on the brand trust of a luxury brand is studied, more precisely, in the context of De Barnier's levels of luxury. Since these three levels of luxury (accessible, intermediate, and inaccessible) portray such different characteristics in terms of commercialization, representing different types of products, it is also interesting to study how these different levels of luxury can impact brand trust. No research about how these distinct levels can impact the relationship between supply chain transparency and sustainability of a luxury brand and the trust that consumers have in the brand was found. Moreover, a study by Kunz et al. (2020) identified an area for future research: to analyze which types of luxury product categories are more suitable to combine luxury and sustainability, and these categories can be represented by De Barnier's levels.

1.3 Research objectives

Considering the described research problem, the following research questions will be discussed:

RQ1*: Does brand trust increase if supply chain transparency is presented in the description of luxury products? And if supply chain sustainability is presented?*

RQ2*: Is brand trust different between accessible luxury products and inaccessible luxury ones?*

RQ3*: Is the impact of supply chain transparency on brand trust different among different luxury levels? And supply chain sustainability?*

1.4 Dissertation outline

This work is organized into five chapters. The first chapter describes the problem statement, relevance, and research objectives. The second chapter focuses on the existing literature review

of the main concepts underlying this study, and results in the formulation of the conceptual framework and hypotheses. The third chapter describes the methodology involved in data collection and analysis. The fourth chapter presents the full data analysis of the collected data and respective results. Finally, the fifth chapter outlines the conclusions and implications of those findings, as well as research limitations and suggestions for future investigation.

CHAPTER 2: LITERATURE REVIEW

2.1 Supply Chain Transparency and Sustainability

2.1.1 Supply Chain Transparency

Supply chain transparency is the act of exposing detailed and accurate information to consumers, investors, and other stakeholders about compliance on operations and products, such as the origin, sourcing, manufacturing processes, costs, and logistics (Bai & Sarkis, 2020; Sodhi & Tang, 2019). Concepts such as visibility, traceability, disclosure, and openness are frequently used as equivalents to supply chain transparency (Montecchi et al., 2021):

- Visibility is about an organization's internal efforts to gather information about its supply chain operations (Sodhi & Tang, 2019).
- Traceability can be defined as everything that happens to the products before, during, and after manufacturing, packaging, and distribution (Sarpong, 2014).
- Disclosure is sharing organizational information with both external and internal stakeholders (Schnackenberg et al., 2021).
- Openness indicates a broader organizational commitment to promoting a culture of proactive disclosure (Cadden et al., 2013).

A bibliometric review of the concept of supply chain transparency identified six distinct literature clusters (Montecchi et al., 2021):

1. Transparency technologies - application of information communication technologies to achieve supply chain transparency.
2. Knowledge integration - between supply chain partners to improve operational performance.
3. Governance - fosters openness.
4. Sustainability - supply chain transparency is a dynamic capability that is crucial to incorporate principles of sustainability in supply chain management (Beske et al., 2014).
5. Traceability - makes it possible to observe each process of the supply chain.
6. Resilience - the ability of the supply chain to recover from disruption.

According to Sodhi & Tang (2019), different levels of supply chain information can be disclosed to the public. Some examples of supply chain transparency include:

- Disclosing supply chain information at all tiers - exposing process information for the entire supply chain, for example, from the sourcing of the materials/ingredients that compose a product to the distribution center.
- Disclosing tier-1 supplier information - revealing the name, location, and activity of the tier-1 supplier.
- Disclosing environmental footprint in the supply chain at all tiers - the degree to which suppliers comply with environmental regulations or norms, regarding water consumption, waste treatment, carbon emissions, etc.
- Disclosing supply chain costs - materials, labor, and transportation (price transparency).
- Disclosing supplier workforce safety compliance - the degree to which suppliers comply with the Environment, Health, and Safety standards at the factory.
- Assuring provenance - conveying names of suppliers, materials used, from where they were extracted, and how they were produced (traceability).
- Involuntary third-party disclosure of the company's information - the risk that all companies face when they don't provide transparency about their practices voluntarily.

Thus, supply chain transparency can also serve as a tool to achieve environmental sustainability and corporate responsibility control (Montecchi et al., 2021). After the work of Sodhi & Tang (2019), the literature was reviewed to frame supply chain transparency in the context of sustainability. Three possible dimensions of supply chain transparency were identified by Schäfer (2023), who developed the sustainable supply chain transparency framework (Figure 1):

1. Sustainable supply chain information:
    a. Material information (materials, components, or ingredients of a product),
    b. Process information (production methods),
    c. Traceability information (allows consumers to trace the entire journey of a product, from the provenance of the raw materials, manufacturing, and distribution, to the point of sale),
    d. Transaction information (purchasing practices and financial transactions),
    e. Commitment information (social and ecological policies that the company puts into practice; compliance with laws, rules, regulations, standards, or norms, and can, for example, take the form of certifications (Falcone & Imbert, 2018). Adhering to industry standards regarding sustainability and other ethical practices via, for example, fair trade, cruelty-free, or eco-friendly certifications,

can increase the preference for those products, compared to others without certifications (Prell et al., 2020a)),

f. Impact information (sustainability impacts of the supply chain),
g. Activity information (action to become more sustainable),
h. Effectiveness information (assessment of the actions taken).

2. Involved stakeholders - information transfer and how it is communicated:
    a. Sender,
    b. Receiver.
3. The perspective of sustainable supply chain transparency - usually considered equivalent to supply chain disclosure (Sodhi & Tang, 2019), is viewed as internal or external supply chain information that is shared with others (Kraft et al., 2018):
    a. Supply chain visibility,
    b. Supply chain disclosure.

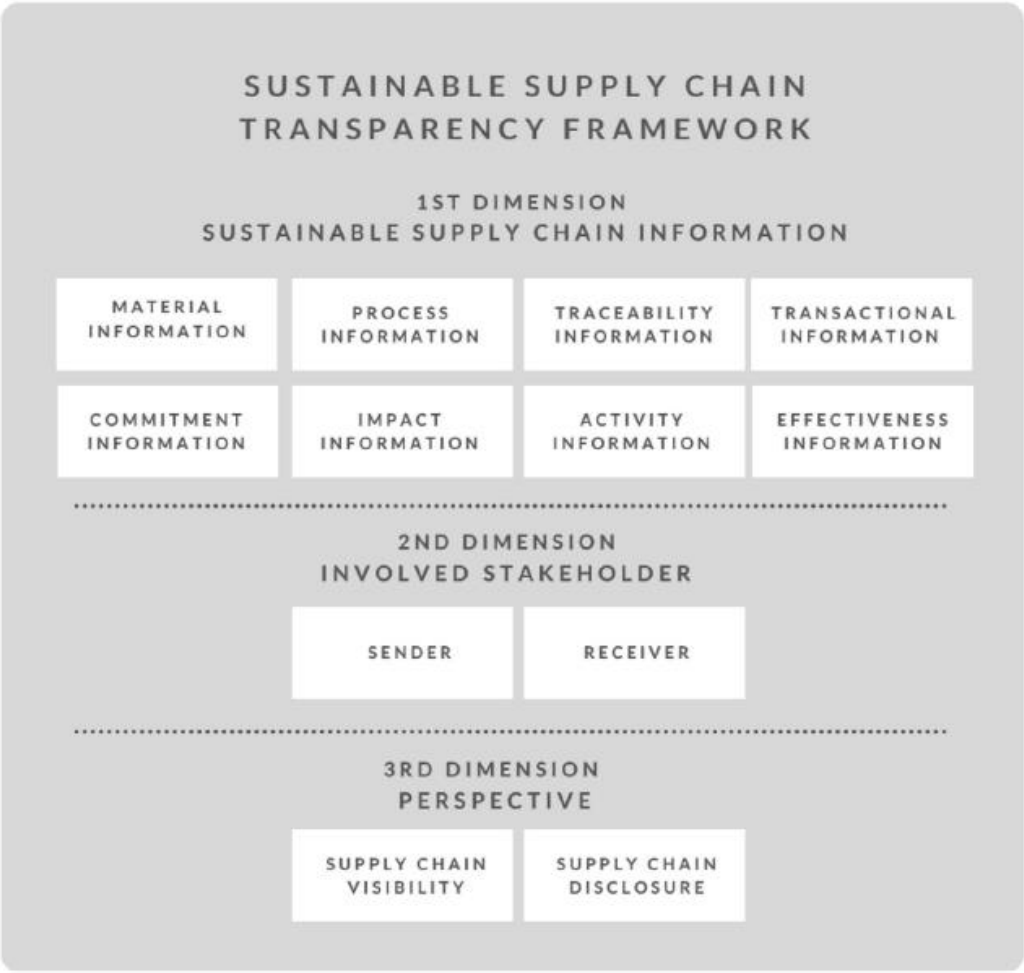


Figure 1 - Sustainable Supply Chain Transparency Framework

Source: Schäfer, 2023

2.1.2 Supply Chain Sustainability

According to the definition of the United Nations' World Commission on Environment and Development (1987), “sustainability means being able to satisfy current needs without compromising the possibility for future generations to satisfy their own needs”. Later, a relationship between three important pillars was recognized: economic growth, social equity, and protection of the environment (Bansal, 2002). The idea of these three pillars stemmed from the notion of the Triple Bottom Line, coined by Elkington (1994), which comprises People, Planet, and Profit (Figure 2). The People's bottom line is about the community and ensuring its well-being, the Planet pillar focuses on the environment and conservation of natural resources, and Profit deals with economic variables.

Supply Chain Management (SCM) within the context of sustainability is a field of growing interest for many (Ashby et al., 2012), and the alignment of these two areas has led to the study of what is now called Sustainable Supply Chain Management (SSCM).

The following categories are strongly linked to environmental sustainability (Caniato et al., 2012):

- Materials - amount used and recyclability,
- Energy and water - consumption and minimization,
- Biodiversity - management of damage to natural habitats,
- Emissions - greenhouse gases,
- Effluents,
- Waste,
- Products and services - initiatives to fight the environmental impact of the products and services,
- Compliance - monetary value of fines and non-monetary value of sanctions,
- Transport - impact of distribution.

Although these categories have been defined within the fashion industry, they are still applicable to other areas. Achieving environmental certifications can also be a way for the organization to prove that it is engaging in sustainability efforts, which can be, for example, about carbon footprint, deforestation, and pollution, or animal welfare (Prell et al., 2020b).

Sustainability in the social dimension can be delivered through fair and equitable treatment of employees and their welfare, as well as concerns with human rights (Ashby et al., 2012). It is closely tied to the concept of Corporate Social Responsibility (CSR), defined as the actions that further some social good, by going beyond the explicit interests of the company (Mcwilliams & Siegel, 2001). Practices that promote social sustainability can also include acquiring Fairtrade certifications (Ashby et al., 2012), which concern, for example, the prohibition of child labor, ensuring humane working conditions, and a decent wage and livelihood for producers and their families (Prell et al., 2020b).

Figure 2 - The Tripple Bottom Line

Source: Dalibozhko & Krakovetskaya, 2018

2.2 Brand Trust

Brand trust is crucial in customer-brand relationships, and is positively associated with brand loyalty, resulting in a positive association with brand equity (Delgado-Ballester & Munuera-

Alemán, 2005). Also, trust in a brand and trust in the company depend on each other, and the performance of brands of a certain company can influence trust in the company and of other brands that it owns (Lau et al., 1999). Additionally, trust has a considerable impact on purchasing behavior and brand customers' satisfaction, such that higher levels of trust incite consumers to buy and reinforce their satisfaction with the brand (Le et al., 2020). However, the conceptualization of brand trust is still not completely clear, with different authors defining the concept in distinct ways, mainly differentiated by the number of dimensions that each author claims the concept is composed of (Koschate-Fischer & Gartner, 2015). Morgan & Hunt (1994) define trust as having confidence in the reliability and honesty of a counterpart in an exchange situation. Chaudhuri & Holbrook (2001) see brand trust as the "willingness of the average consumer to rely on the ability of the brand to perform its stated function", a one-dimensional definition based on performance. Although most studies apply this scale to measure brand trust in their research, this did not go through a scale development process.

Delgado-Ballester et al. (2003) created a scale with two dimensions: brand reliability (based on the belief of the consumer that the brand keeps its value promise) and brand intentions (based on the belief of the consumer that, if an unexpected issue related to product consumption occurs, the brand will have their best interests in mind).

Hess (1995) defined brand trust based on three dimensions: altruism (consumer trusts that the brand has their best interests in mind), honesty (consumer trusts that the information they receive is correct), and reliability (consumer trusts that the products that the brand sells will perform the function they were designed to demonstrate).

Based on these brand trust measurement scales, a study developed a reliable 5-item scale with discriminant validity, concluding that conceptualizing brand trust with only one dimension is the best option (Koschate-Fischer & Gartner, 2015):

- "I am confident in [brand's] ability to perform well.".
- "I trust [brand].".
- "I rely on [brand].".
- "[Brand] is safe.".
- "[Brand] delivers what it promises.".

This research work involved the conduction of two empirical studies, and both resulted in a very high Cronbach's (1951) alpha for the developed brand trust scale, showing its high level of reliability: 0.94.

One major benefit of engaging in supply chain transparency is the ability to win consumers' and investors' trust (Sodhi & Tang, 2019). According to MacLean & MacLean (2007), "There is no better way to build trust among stakeholders than through transparency". When a corporation shows transparency about its production and labor conditions and is ethical, this strongly and positively impacts consumers' trust in the corporation (Kang & Hustvedt, 2014; Singh et al., 2012). Also, if consumers with environmental awareness perceive a brand as eco-friendly, this results in higher trust in the brand (Punyatoya, 2014).

Many brands, especially in the fashion sector, have been trying to meet this growing demand for transparency and sustainability practices along the supply chain. A great example of this is Patagonia, whose actions have resulted in it becoming one of the most trusted and respected brands in the world (Barrett, 2023).

Still, not many studies have been carried out on the effects of supply chain transparency and sustainability on brand trust in the context of the luxury industry. Interestingly, a rather recent work on the impact of price and production transparency on consumers' perception of a brand in the fashion industry suggested the following for future research: examine the effects with a real brand and within an industry that is not fashion (N. L. Kim et al., 2020) (this thesis will use a real brand, and the industry will be luxury).

2.3 Luxury Industry

The luxury industry encompasses mainly nine segments: personal luxury goods, luxury cars, luxury hospitality, fine wines and spirits, gourmet food and fine dining, high-end furniture and housewares, fine art, private jets and yachts, and luxury cruises (D'Arpizio et al., 2021). Despite the recent macroeconomic challenges, the market has witnessed impressive growth, having been estimated to have reached €1.5 trillion globally in 2023 (D'Arpizio et al., 2024).

But what is luxury? The concept has caused some confusion among academics and practitioners due to its subjectivity, resulting in different definitions. According to Kapferer (2012), luxury is about "rare, hedonic, very high-quality objects and services, sold at a price far beyond what their functional value would command". Luxury brands possess two in-dissociable sides: sociological and psychological: the first pertains to creating a social stratification (Vigneron & Johnson, 1999); the second is about hedonism and giving oneself pleasure by buying a "dream" (Dubois, 1995). Also, the concept of luxury can be quite paradoxical, since these brands need to manage a "gap" between high visibility and awareness, but restricted access and low penetration (J. N. Kapferer, 2012). They need to expand and sell as much as possible without losing their rarity and exclusivity factors (harming the brand's image) since it is very easy to fall into the trap of stopping being considered luxury in the consumers' view, once commercialization is too wide (De Barnier et al., 2012). As J.-N. Kapferer (2015) says, "Luxury is an industry like no other: it is the only one for which growth creates a problem".

Considering consumer's increasing concern about social and environmental matters, it is ever most important for luxury brands not to ignore this topic, as they have traditionally done (Athwal et al., 2019). Younger luxury consumers are more driven by value, which means that traditional heritage luxury brands cannot count only on their reputation or status to stay relevant (Tynan et al., 2010). Consumers are calling for more accountability in luxury companies' supply chains (Sanderson, 2013) and pressuring luxury producers to make their business practices more sustainable (Li & Leonas, 2019). Millennials are demanding total transparency from luxury brands regarding environmental and ethical issues (de Boissieu et al., 2021).

Transparency of luxury brands' business processes allows for traceability of its products' paths throughout the supply chain, helping them to provide warranties for the products' quality and origins, improving the brands' image (de Boissieu et al., 2021). Although several companies from different industries have been trying to be more socially and environmentally responsible, the luxury sector has not been keeping up with the movement (Robin, 2015). However, nowadays, sustainability is a requirement for the luxury industry, not just preferable (Amatulli et al., 2017), and as Athwal et al. (2019) concluded, it is crucial to make sure that the sustainability strategy is aligned with the fundamental nature of luxury, which involves heritage, quality, longevity, and timelessness. Still, luxury sustainability is a topic with limited academic research (Athwal et al., 2019). A study has claimed that instead of leveraging product excellence, luxury brands can innovate their communication strategies by leveraging

sustainability (Amatulli et al., 2021). Steinhart et al. (2013) found that the presence of environmental claims, such as eco-labels, can enhance the perception of luxury products by providing justifications for indulgence.

Nevertheless, research has found that luxury brands that engage in CSR activities can be seen negatively by consumers since there seems to be a mismatch between the self-enhancement (desire for hedonism and dominance) brand concept of luxury brands and the self-transcendence (transcendence of egotistic motives) idea associated with sustainability (Torelli et al., 2012). According to Schwartz's (1992) model of human values, the self-enhancement and self-transcendence systems oppose each other, and the previously mentioned study concluded that when a company tries to evoke these two systems at the same time in consumers' minds, it creates stress and can dilute the brand's value (Torelli et al., 2012).

However, the core values of luxury seem to be aligned with transparency and sustainability. J.-N. Kapferer (2010) defends that "luxury is the enemy of the throwaway society". He claims that luxury and sustainable development share concerns for rarity and beauty, and that luxury is, by definition, durable, which is a core characteristic of sustainability (J.-N. Kapferer, 2010). Still, the recent "massification" of luxury, which has introduced entry-level products and services (J.-N. Kapferer et al., 2017), may undermine luxury's potential compatibility with sustainability (Athwal et al., 2019).

Some luxury brands have been acting to provide more supply chain transparency and sustainability to consumers. The Kering Group has a tool for measuring and quantifying the environmental impact of its activities, the "Environmental Profit and Loss (EP&L) account" (Kering, 2024). As for the LVMH Group, "Transparency" is even one of the pillars of its Environmental LIFE 360 program, which is the company's approach to environmental responsibility (LVMH Group, 2023). An example of this commitment is the Guerlain Bee Respect Platform, which is accessible via the Guerlain website, and provides supply chain transparency and traceability on the whole life cycles of all products (LVMH Group, 2023). Regarding the Richemont Group, there is Chloé Vertical, a digital ID system that allows users to trace a product's supply chain journey (Cernansky, 2023).

When it comes to trust in a luxury brand, a study has found that the existence of brand prestige leads to a positive creation of trust (Jin et al., 2016), meaning that marketers need to maintain

a high image of prestige to build consumers' trust in the luxury brand. Although Rose et al. (2016) did not explore brand heritage in the context of the luxury industry, this attribute plays a crucial role in this sector, and the study found that it can incite trust. Another study demonstrated results in line with previous research when it comes to brand trust being positively impacted by brand personality: managers of luxury fashion brands should take not only into consideration their products' functional/tangible characteristics but also their symbolic/intangible ones (Tong et al., 2018). However, there is still little research on brand trust and the luxury industry, and there seems to be currently no work on the impact of the three levels of luxury on brand trust.

2.3.1 Three Levels of Luxury

The greater accessibility of luxury brands to more diverse consumer markets has resulted in a deflection of how consumers define luxury since they are starting to think of these products as no longer exclusive to the elite society, but also available to the masses, the "democratization of luxury" (Dubois, 1995).

J.-N. Kapferer & Bastien (2009) suggested a luxury pyramid to represent each level of a luxury brand's product mix (Figure 3), where the prices decrease and diffusion to a broader clientele increases from top to bottom of the pyramid:

- At the top of the pyramid, there is the "griffe", representing pieces of art that go beyond any type of necessity, such as haute couture.
- Under "griffe" lies "high-end range", composed of highly selective products for the elite only, for example, a rare vintage wine.
- Whereas the previous two aim to create awareness, the "core range" level aims to achieve profit through a larger, more standardized series of iconic products, such as the Louis Vuitton Speedy bag.
- At the bottom of the pyramid, the "entry range" aims to sell more affordable and lower quality products to consumers who can become loyal and go up the pyramid in the future; this includes fragrances and glasses (eyewear).

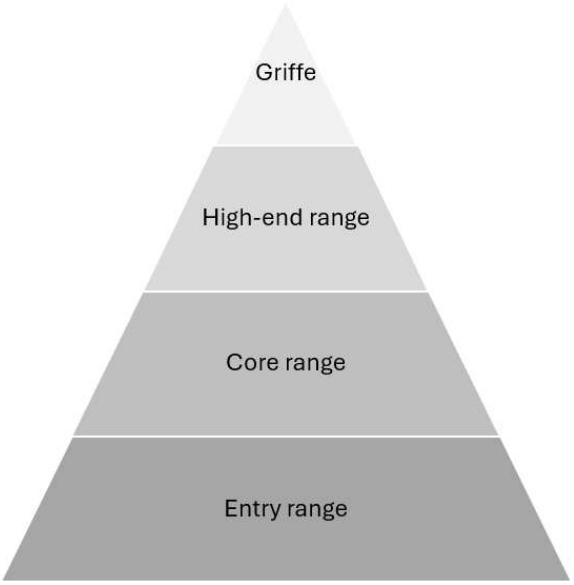


Figure 3 - The luxury pyramid

Source: Adapted from J.-N. Kapferer & Bastien, 2009

Besides the luxury pyramid, previous literature has confirmed the existence of three levels of luxury: accessible, intermediate, and inaccessible (De Barnier et al., 2012) (Figure 4), according to how a product is marketed, as supported by Danielle (1991):

- Inaccessible luxury is for the elite social class, with products characterized by extremely high prices and the capacity to provide the owner with outstanding social prestige, such as high-end jewelry.
- Intermediate luxury is targeted at the professional social class, and the associated products are usually ready-to-wear clothing, as well as accessories like handbags and watches. The prices are lower than for the inaccessible products, and the number of people who can afford these is higher.
- Accessible luxury products are easily reachable by consumers from the middle class who desire to achieve a higher social status. Examples of these products are perfumes and cosmetics. Hence, they are quite affordable and accessible to many people.

Although De Barnier et al.'s (2012) study applied a between-brand perspective, it is also possible to use the same rationale for a within-brand perspective: for example, the brand Dior can have as inaccessible luxury its haute couture pieces, as intermediate the ready-to-wear collections, and as accessible the licensed products such as perfumes and eyewear (Kluge, 2016). Coming back to the luxury pyramid (J.-N. Kapferer & Bastien, 2009), it is possible to

draw parallelisms with the three levels of luxury, considering the price positioning: the "high-end range" level priced as inaccessible, the "core range" as intermediate, and the "entry range" as accessible (Kluge, 2016).

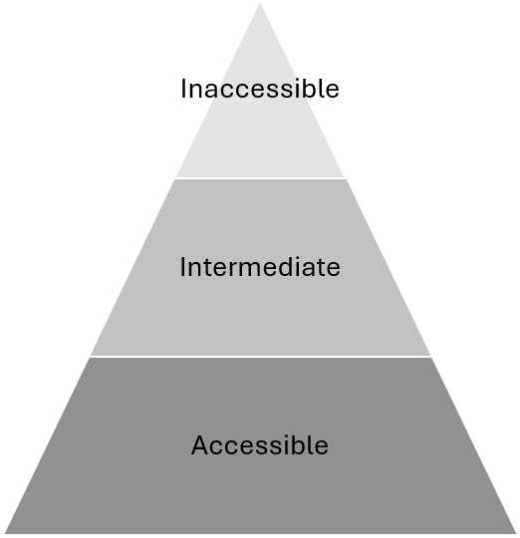


Figure 4 - The three levels of luxury

Source: Ramalho, 2024

2.4 Conceptual Framework

This study analyzes the impact of Supply Chain Information and Luxury Level on Brand Trust. Also, it explores the moderating role of the Luxury Level in the relationship between Supply Chain Information and Brand Trust.

According to the literature review, the presence of supply chain transparency leads to higher brand trust (Sodhi & Tang, 2019). However, more studies about the presence of both supply chain transparency and sustainability increasing brand trust were found, such as Kang & Hustvedt's (2014), Singh et al.'s (2012), and Punyatoya's (2014), as well as the real-life example of Patagonia (Barrett, 2023), which seem to indicate that the additional presence of sustainability can more easily lead to higher brand trust than just transparency.

No studies have been found on the potential influence of the luxury level on brand trust. In light of Athwal et al.'s (2019) suggestion that the recent "massification" of luxury may undermine luxury's potential compatibility with sustainability, it seems that an accessible luxury product may affect sustainability differently from an inaccessible one. Hence, the luxury level of a

product can exhibit an interaction with supply chain information with the potential to impact brand trust.

Based on the literature review and the research questions, the conceptual framework (Figure 5) was formulated.

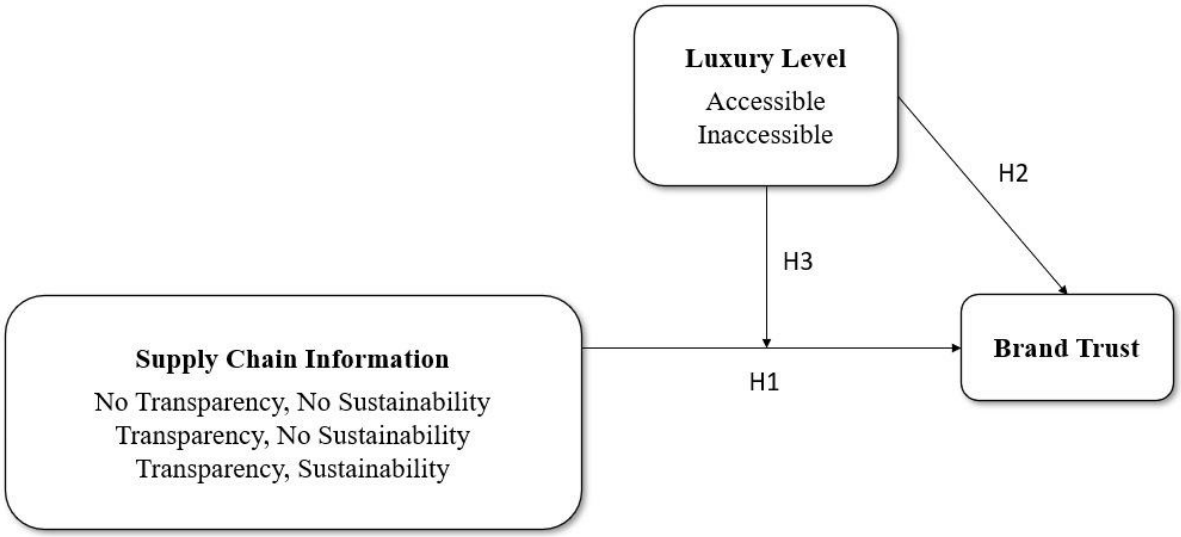


Figure 5 - Conceptual framework and hypotheses H1, H2, and H3

Source: Ramalho, 2024

CHAPTER 3: METHODOLOGY

The following chapter presents a detailed description of the methodology employed to address the research questions and hypotheses. It starts with the research approach and moves on to information about the data collected, the measurements, the participants of the study, and the survey. It finishes with a summary of the data analysis.

3.1 Research approach

This dissertation aims to deepen the understanding of the impact of supply chain transparency and sustainability on the trust of luxury brands, as well as comprehend the possible moderating role of the luxury level. Both exploratory data analysis (descriptive statistics) and confirmatory data analysis (inferential statistics), complementary methods (Hoyle, 2000), were performed during the study. According to Suhr (2006), while in exploratory factor analysis (EFA) the underlying factor structure is unknown and the aim is to investigate a set of observed variables without assuming a predetermined structure (helps uncover hidden relationships), in confirmatory factor analysis (CFA), there is prior knowledge about the factor structure, and the goal is to test the hypothesis that indicates the existence of a relationship between observed variables (test preconceived assumptions).

First, EFA was conducted, which involved a literature review on the main concepts, i.e., subjects like supply chain transparency, supply chain sustainability, the luxury industry and the three luxury levels, brand trust, and the relations between all these constructs. After this, the research problem was defined, and consequently, the research questions, conceptual framework, and hypotheses were formalized. Descriptive statistics were implemented to explore the data, such as the calculation of summary statistics and manipulation checks. Then, CFA was used to test the assumptions, where only quantitative methods were applied. Surveys and focus groups (1on1 interviews) were conducted to collect the data to be analyzed with IBM's software Statistical Package for the Social Science (SPSS), version 28.0.0.0.

3.2 Data collection

In this section, we will go into detail about the stimuli design and its different stages, the participants, and the collection of the data, which required field work, in this case, the distribution of an online survey.

3.2.1 Measurements

3.2.1.1 Stimuli design

To develop the stimuli for this research, five main steps were followed (Figure 6).

1. The first step was the state of the art described in the previous chapters, which involved a literature review and the definition of the conceptual framework and hypotheses. From the literature review, the following categories for each of the three constructs (variables) were determined:
   - Three categories for the independent variable Supply Chain Information (without transparency and sustainability, with transparency and without sustainability, with transparency and with sustainability),
   - Three categories for the moderator Luxury Level (accessible, intermediate, inaccessible),
   - A 5-item Likert-scale for the dependent variable Brand Trust, based on the work of Koschate-Fischer & Gartner (2015): "I am confident in [brand's] ability to perform well.", "I trust [brand].", "I rely on [brand].", "[Brand] is safe.", "[Brand] delivers what it promises."

2. The second step was about defining the luxury brand and luxury levels to be used in this study, as well as the corresponding product to represent each level. For this, an online survey in Qualtrics was randomly distributed, which filtered the target population by women right on the first question. This resulted in Dior being the chosen brand, and only the luxury levels accessible and inaccessible were picked, with perfume representing the first one and high-end jewelry representing the second.

3. The stimuli to be used in the 1on1 interviews were created in the third step. At this point, it was clear that this study was a three (three categories for Supply Chain Information) per two (two categories for Luxury Level) experimental design, i.e., six (3x2) different stimuli were produced. A summary of the six stimuli can be found in Table 1.

4. The fourth step was the conduction of the 1on1 interviews, which adjusted the six stimuli according to the feedback received from the participants. This stage proved

especially valuable in providing insights on the most suitable ways to portray each desired scenario of supply chain information to be used in the final survey.

5. The fifth and final step concerned the development and distribution of the final online survey in Qualtrics, which was created using the results from the previous steps of the stimuli development. For the questions that required a scale, a 7-point Likert-type scale was used, since this has been considered to perform better than the 5-point scale (Joshi et al., 2015).

Figure 6 – Stimuli Development Steps

Table 1 - The six stimuli

	Luxury Level	
Supply Chain Information	**Accessible**	**Inaccessible**
No Transparency, No Sustainability	Stimulus 1	Stimulus 2
Transparency, No Sustainability	Stimulus 3	Stimulus 4
Transparency, Sustainability	Stimulus 5	Stimulus 6

3.2.1.1.1 Pilot Study

An online survey in Qualtrics was distributed in English (Appendix A) to define the brand and do manipulation checks on the moderator, i.e., luxury level. The participants were asked to what extent they agreed that the products shown were accessible, intermediate, or accessible. The options of products for each level were defined according to the work of De Barnier et al. (2012) and J.-N. Kapferer & Bastien (2009):

- For the inaccessible level, two products were tested: a couture piece and high-end jewelry.
- For the intermediate level, three: ready-to-wear clothing, a handbag, and a watch.
- For the accessible level, two products: perfume and eyewear.

From the 101 responses to the Pilot Study, only 68 were considered, since only these were from women who had completed the whole survey and passed the attention question. There were no duplicated IPs. The conclusions were: Dior was the chosen brand to be used (highest familiarity), and from the three luxury levels, only the inaccessible and the accessible ones were selected, where the product high-end jewelry should represent the inaccessible level, and the product perfume should represent the accessible level. The intermediate level was left out of the study since the manipulation was unsuccessful.

3.2.1.1.2 1on1 Interviews

1on1 interviews were conducted with five women, to help define the six stimuli for the final survey. For each of the two Dior products, a high-end jewelry piece and a perfume, three scenarios were presented, which were different according to the type of supply chain information about the product. Therefore, six stimuli (scenarios) were presented in total, characterized by an image of the product and a text next to it with the respective supply chain information. They were adjusted according to the feedback received from the interviewees.

When it came to the creation of the first versions of the six stimuli, for transparency only, the information used was based on some elements of the work of Sodhi & Tang (2019) and Schäfer's (2023) sustainable supply chain transparency framework, without considering the sustainability aspects. To integrate transparency and sustainability at the same time, the information used considered some sustainability aspects of Sodhi & Tang's (2019) study and Schäfer's (2023), as well as the work of Ashby et al. (2012) and Caniato et al. (2012).

3.2.1.1.3 Survey

An online survey in Qualtrics was created and distributed in English (Appendix B). Each participant was randomly assigned to only one of the six possible stimuli, to guarantee independence of observations.

3.2.1.2 Operational model

The operational model can be found in Table 2.

Table 2 - Operational Model

Framework	Measure	Items	Scale	Reference	Cronbach α
IV	Supply Chain Information	Stimuli	*na*	Schäfer (2023) Sodhi & Tang (2019) Ashby et al. (2012) Caniato et al. (2012)	*na*
Moderator	Luxury Level	Stimuli	*na*	De Barnier et al. (2012) J.-N. Kapferer & Bastien (2012)	*na*
DV	Brand Trust	5	7-point Likert Scale	Koschate-Fischer & Gartner (2015)	0.94

3.2.2 Participants

The target population was every woman with no specific nationality. The filter on women was due to the products representing each luxury level being only worn by women. The selection of the subjects was random.

3.2.3 Fieldwork/Survey

Only primary data was used, and it was collected via a Qualtrics survey. The questionnaire was made accessible online to the public from the 3rd of July 2024 to the 7th of August 2024, and distributed through social media and e-mail. It comprised 12 questions (Appendix B):

- Gender,
- Two screening questions on the Dior brand (to ensure awareness about the brand and no negative bias toward it).
- Level of familiarity with the concepts of supply chain transparency and sustainability.
- Attention test.
- Three questions: two manipulation questions, for Supply Chain Information and Luxury Level, and one about Brand Trust. Participants were randomly and evenly assigned to one of six possible scenarios, each with an image of a Dior product and a text describing the respective supply chain information.
- Three demographic questions.

3.3 Data analysis

The data collected is of cross-sectional type since it was gathered from multiple subjects (survey respondents) during a specific and short time, and the variables for which the data was collected describe those subjects.

To assume normality of the data using the Central Limit Theory, and thus use parametric methods of analysis, at least 30 valid answers were necessary per stimuli. Since there were 6 different stimuli, 180 valid responses were needed (6x30=180).

Only complete responses with no duplicated IPs from women who knew the brand Dior, didn't "strongly dislike" it, and passed the attention question were considered.

To characterize the sample, descriptive statistics were conducted for each variable, along with an exploration of the relationship between some variables. A reliability test and manipulation checks were also completed. Finally, inferential statistics was performed to answer the hypotheses. All p-values were interpreted at the 5% significance level, with corresponding 95% confidence intervals (CI).

3.3.1 Variables Description

Below is a brief description of each variable.

Independent Variables

- *Feeling for Dior* - feelings for the brand Dior, on a scale from 1 (strongly dislike) to 7 (strongly like); categorical ordinal variable.
- *Familiarity Supply Chain Transparency* - level of familiarity with the concept of supply chain transparency, on a scale from 1 (strongly unfamiliar) to 7 (strongly familiar); categorical ordinal variable.
- *Familiarity Supply Chain Sustainability* - level of familiarity with the concept of supply chain sustainability, on a scale from 1 (strongly unfamiliar) to 7 (strongly familiar); categorical ordinal variable.

- *Age* - age group, which can be one of the following: “Under 18”, “18-24 years old”, “25-34 years old”, “35-44 years old”, “45-54 years old”, “55-64 years old”, or “65+ years old”; categorical ordinal variable.
- *Employment Status* – the type of employment, which can be one of the following: “Employed Full-Time”, “Employed Part-Time”, “Student”, “Retired”, “Unemployed”, or “Other”; categorical nominal variable.
- *Individual Monthly Gross Income* – individual monthly gross income, which can be one of the following: “Less than €1,000”, “€1,001 - €2,000”, “€2,001 - €3,000”, “€3,001 - €4,000”, “€4,001 - €5,000”, “Above €5,000”, or “Prefer not to answer”; categorical ordinal variable.
- *Supply Chain Information* (SCI) – the type of supply chain information displayed for the product (scenario), which can be one of the following: “No Transparency, No Sustainability”, “Transparency, No Sustainability”, or “Transparency, Sustainability”; categorical nominal variable.

Moderator

- *Luxury Level* (LL) – the luxury level that the product presented in the stimuli represents, which can be one of the following: “Accessible” (for the perfume) or “Inaccessible” (for the high-end jewelry); categorical nominal variable.

Dependent Variables

- *Brand Trust* (BT) – score of brand trust for the participant; continuous (numerical) variable.

3.3.2 Data Preparation

494 responses were collected from the survey, of which 432 were female, 425 knew the brand Dior, 418 didn’t choose the option “strongly dislike” for the question about feelings for the brand Dior, and 289 were complete. Therefore, there were 289 initial observations. Then, only the ones that passed the attention test question were considered (282) and those with duplicate IPs were removed (remaining 275). After that, the observations that didn’t pass at least one of the manipulation questions were discarded. For this, extreme answers that were the opposite of

what was intended were chosen ("strongly agree" or "strongly disagree"), e.g., answering "strongly agree" to the question "This product (perfume) is an inaccessible luxury.". This resulted in 246 observations. Finally, outliers were deleted, leaving 243 observations in total to analyze. Table 3 resumes the data preparation process.

BT scores were calculated for each observation using the level of agreement (7 items Likert-type scale) with each of the 5 items. Therefore, an observation could have a minimum BT score of 5 (1x5), i.e., by choosing "1 – strongly disagree" for all 5 items, and a maximum of 35 (7x5), i.e., by choosing "7 – strongly agree" for all 5 items.

For the identification of outliers, the normality of the data was assumed. The distribution of the BT score was analyzed for each stimulus, to correctly identify the outliers considering the relationship between the BT score and the variables LL and Supply Chain Transparency at the same time. The Z-score method assumes that the data follows a normal distribution and does not work so well for a small sample size (Iglewicz & Hoaglin, 1993), whereas the 3-standard deviation (3SD) method does not assume that the data follows a normal distribution and is less sensitive than the Z-score to extreme values. Since the BT score distribution for each stimulus was slightly skewed in some cases and the sample size ranged from 37 to 50 (rather small), both methods were applied to each stimulus and compared. It turns out that both detected the same outliers.

Table 3 - Data Preparation

	Stimulus 1	Stimulus 2	Stimulus 3	Stimulus 4	Stimulus 5	Stimulus 6	TOTAL
Initial Observations	55	48	48	50	43	45	289
Failed Attention Test	0	1	1	2	0	3	7
Repeated IPs	2	1	3	0	0	1	7
Failed Manipulation	3	5	7	7	3	4	29
Outliers	1	1	0	0	1	0	3
Valid Observations	**49**	**40**	**37**	**41**	**39**	**37**	**243**

3.3.3 Data Preparation

The hypotheses and respective null and alternative hypotheses were defined:

Impact of Supply Chain Information on Brand Trust

H1*: Supply Chain Information impacts Brand Trust.*

H1a*: Brand Trust is significantly higher for a scenario of Supply Chain Information in which transparency, but no sustainability is present than for a case in which no transparency and no sustainability are present.*

H_{01a}: The mean Brand Trust score for the group "Supply Chain Information = Transparency, No Sustainability" is equal to or lower than for the group "Supply Chain Information = No Transparency, No Sustainability".

$$\mu_{Transp,\ NoSust} \leq \mu_{NoTransp,\ NoSust}$$

H_{11a}: The mean Brand Trust score for the group "Supply Chain Information = Transparency, No Sustainability" is significantly higher than for the group "Supply Chain Information = No Transparency, No Sustainability".

$$\mu_{Transp,\ NoSust} > \mu_{NoTransp,\ NoSust}$$

H1b*: Brand Trust is significantly higher for a scenario of Supply Chain Information in which transparency and sustainability are present than for a case in which transparency, but no sustainability is present.*

H_{01b}: The mean Brand Trust score for the group "Supply Chain Information = Transparency, Sustainability" is equal to or lower than for the group "Supply Chain Information = Transparency, No Sustainability".

$$\mu_{Transp,\ Sust} \leq \mu_{Transp,\ NoSust}$$

H_{11b}: The mean Brand Trust score for the group "Supply Chain Information = Transparency, Sustainability" is significantly higher than for the group "Supply Chain Information = Transparency, No Sustainability".

$$\mu_{Transp,\ Sust} > \mu_{Transp,\ NoSust}$$

H1c*: Brand Trust is significantly higher for a scenario of Supply Chain Information in which transparency and sustainability are present than for a case in which no transparency and no sustainability are present.*

H_{01c}: The mean Brand Trust score for the group "Supply Chain Information = Transparency, Sustainability" is equal to or lower than for the group "Supply Chain Information = No Transparency, No Sustainability".

$$\mu_{Transp,\ Sust} \leq \mu_{NoTransp,\ NoSust}$$

H_{11c}: The mean Brand Trust score for the group "Supply Chain Information = Transparency, Sustainabilityç" is significantly higher than for the group "Supply Chain Information = No Transparency, No Sustainability".

$\mu_{Transp, Sust} > \mu_{NoTransp, NoSust}$

H1d*: Presenting transparency but no sustainability has a significant positive effect on the Brand Trust score (has a higher Brand Trust score) compared to a scenario without transparency or sustainability.*

H_{01d}: The coefficient for "Supply Chain Information = Transparency, No Sustainability" is equal to or lower than zero.

$\beta_1 \leq 0$

H_{11d}: The coefficient for "Supply Chain Information = Transparency, No Sustainability" is significantly higher than zero.

$\beta_1 > 0$

H1e*: Presenting transparency and sustainability has a significant positive effect on the Brand Trust score (has a higher Brand Trust score) compared to a scenario without transparency or sustainability.*

H_{01e}: The coefficient for "Supply Chain Information = Transparency, Sustainability" is equal to or lower than zero.

$\beta_2 \leq 0$

H_{11e}: The coefficient for "Supply Chain Information = Transparency, Sustainability" is significantly higher than zero.

$\beta_2 > 0$

H1f*: Presenting transparency and sustainability has a significant positive effect on the Brand Trust score (has a higher Brand Trust score) compared to a scenario with transparency but no sustainability.*

H_{01f}: The coefficient for "Supply Chain Information = Transparency, Sustainability" is equal to or lower than the coefficient for "Supply Chain Information = Transparency, No Sustainability".

$\beta_2 \leq \beta_1$

H_{11f}: The coefficient for "Supply Chain Information = Transparency, Sustainability" is significantly higher than for "Supply Chain Information = Transparency, No Sustainability".

H_{11f}: $\beta_2 > \beta_1$

Impact of Luxury Level on Brand Trust

H2*: Luxury Level impacts Brand Trust.*

H2a*: Brand Trust is significantly different between accessible luxury products and inaccessible luxury ones.*

H_{02a}: There is no difference in the mean Brand Trust score between "Luxury Level = Accessible" and "Luxury Level = Inaccessible".

$\mu_{Ina} = \mu_{Acc}$

H_{12a}: The mean Brand Trust score for "Luxury Level = Accessible" is significantly different from "Luxury Level = Inaccessible".

$\mu_{Ina} \neq \mu_{Acc}$

H2b*: The type of Luxury Level has a significant effect on Brand Trust.*

H_{02b}: The coefficient for Luxury Level is not different from zero.

$\beta_1 = 0$

H_{12b}: The coefficient for Luxury Level is significantly different from zero.

$\beta_1 \neq 0$

Impact of Interaction between Supply Chain Information and Luxury Level on Brand Trust

H3*: The effect of Supply Chain Information on Brand Trust is moderated by the Luxury Level.*

H3a*: Brand Trust is significantly different between each of the six stimuli (combinations of Supply Chain Information and Luxury Level).*

H_{03a}: There is no difference in the mean Brand Trust score between each stimulus.

$\mu_{Sti\_1} = \mu_{Sti\_2} = \mu_{Sti\_3} = \mu_{Sti\_4} = \mu_{Sti\_5} = \mu_{Sti\_6}$

H_{13a}: At least one pairwise comparison of means is significantly different.

H3b*: There is a significant interaction effect between Supply Chain Information and Luxury Level on Brand Trust (moderation of Luxury Level.*

H_{03b}: The interaction coefficients are not different from zero.

$\beta_4 = \beta_5 = 0$

H_{13b}: At least one of the interaction coefficients is significantly different from zero: $\beta_4 \neq 0$ and/or $\beta_5 \neq 0$.

CHAPTER 4: RESULTS

4.1 Sample Characterization

Figure 7 shows that the sample consists of 125 responses (51.4%) of a scenario with an accessible luxury product and 118 responses (48.6%) of a scenario with an inaccessible luxury product (N=243). Although there are slightly more cases with the accessible LL, it seems that there is a balance between both levels.

Frequency of Luxury Level

	Frequency	Percent (%)	Cumulative Percent (%)
Accessible	125	51.4	51.4
Inaccessible	118	48.6	100.0
Total	243	100.0	

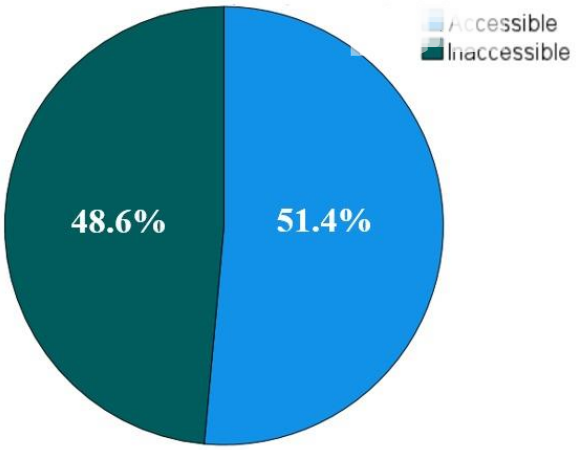


Figure 7 - Frequency of LL

Figure 8 shows that there are 89 responses (36.6%) of a scenario with SCI showcasing no transparency and no sustainability, 78 responses (32.1%) of a scenario showcasing transparency but no sustainability, and 76 responses (31.3%) of a scenario showcasing both transparency and sustainability. Even though there are slightly more responses for stimuli 1 and 2 (89), the distribution of responses among each type of scenario is still balanced.

The most prevalent age group is between 18 and 24 years old (49%), almost half of the sample (Figure 9). After that, it is between 25 and 34 years old (39.1%), making almost 90% of the sample (89.3%) covered by people under 35 years of age.

Frequency of Supply Chain Information

	Frequency	Percent (%)	Cumulative Percent (%)
No Transparency, No Sustainability	89	36.6	36.6
Transparency, No Sustainability	78	32.1	68.7
Transparency, Sustainability	76	31.3	100.0
Total	243	100.0	

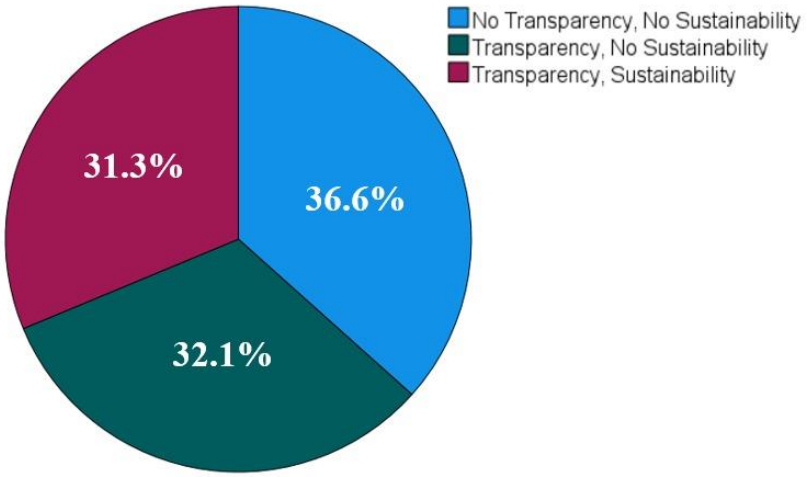


Figure 8 - Frequency of SCI

Almost 50% of the sample is covered by people working full-time (49.4%), while nearly half is made up of students (44.9%) (Figure 10).

More than a quarter of the sample earns less than €1,000 (27.6%) and almost 60% earn up to €2,000 (59.3%) (Figure 11).

Almost 65% of respondents (64.2%) like the brand Dior. 30% are neutral toward the brand and only around 6% (5.8%) dislike it (Figure 12).

More than 50% of the participants (56.3%) feel familiar with the concept of supply chain transparency, around 30% are unfamiliar (34.2%) and 10% are neutral (9.5%) (Figure 13).

Almost 70% of the respondents (69.6%) feel familiar with the concept of supply chain sustainability, which is a considerable difference compared to the familiarity with the concept of supply chain transparency (56.3%) (Figure 14).

Frequency of Age

	Frequency	Percent (%)	Cumulative Percent (%)
Under 18 years old	3	1.2	1.2
18-24 years old	119	49.0	50.2
25-34 years old	95	39.1	89.3
35-44 years old	8	3.3	92.6
45-54 years old	11	4.5	97.1
55-64 years old	7	2.9	100.0
65+ years old	0	0.0	100.0
Total	243	100.0	

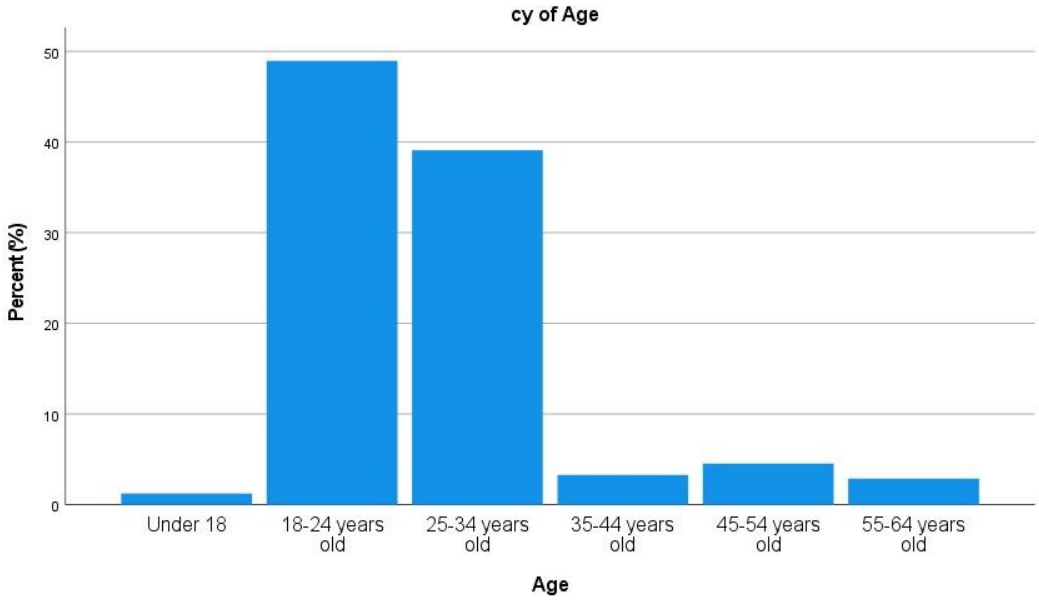


Figure 9 - Frequency of Age

Frequency of Employment Status

	Frequency	Percent (%)	Cumulative Percent (%)
Employed Full-Time	118	48.6	48.6
Employed Part-Time	2	0.8	49.4
Student	109	44.9	94.2
Retired	1	0.4	94.7
Unemployed	5	2.1	96.7
Other	8	3.3	100.0
Total	243	100.0	

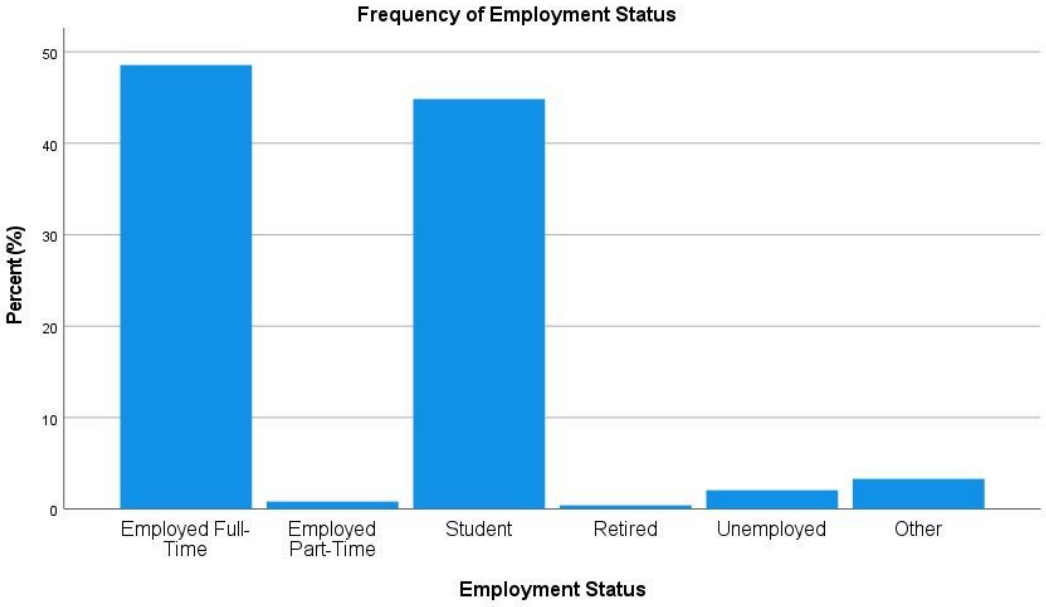


Figure 10 - Frequency of Employment Status

Frequency of Individual Monthly Gross Income

	Frequency	Percent (%)	Cumulative Percent (%)
Less than €1,000	67	27.6	27.6
€1,001 - €2,000	77	31.7	59.3
€2,001 - €3,000	31	12.8	72.0
€3,001 - €4,000	18	7.4	79.4
€4,001 - €5,000	11	4.5	84.0
Above €5,000	12	4.9	88.9
Prefer not to answer	27	11.1	100.0
Total	243	100.0	

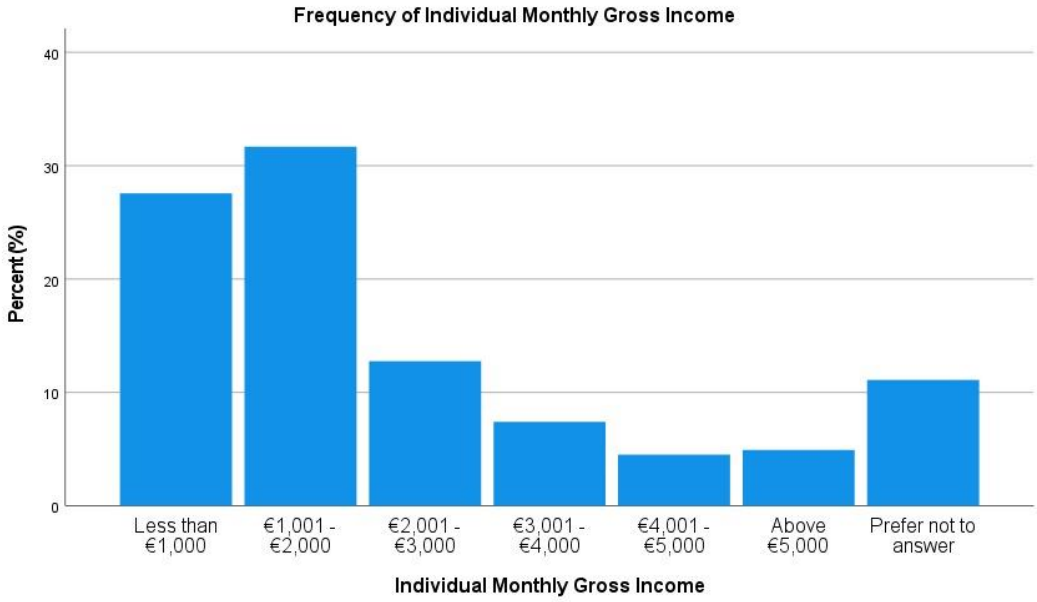


Figure 11 – Frequency of Individual Monthly Gross Income

Frequency of Feeling for Dior

	Frequency	Percent (%)	Cumulative Percent (%)
2 = dislike	2	0.8	0.8
3 = slightly dislike	12	4.9	5.8
4 = neutral	73	30.0	35.8
5 = slightly like	47	19.3	55.1
6 = like	83	34.2	89.3
7 = strongly like	26	10.7	100.0
Total	243	100.0	

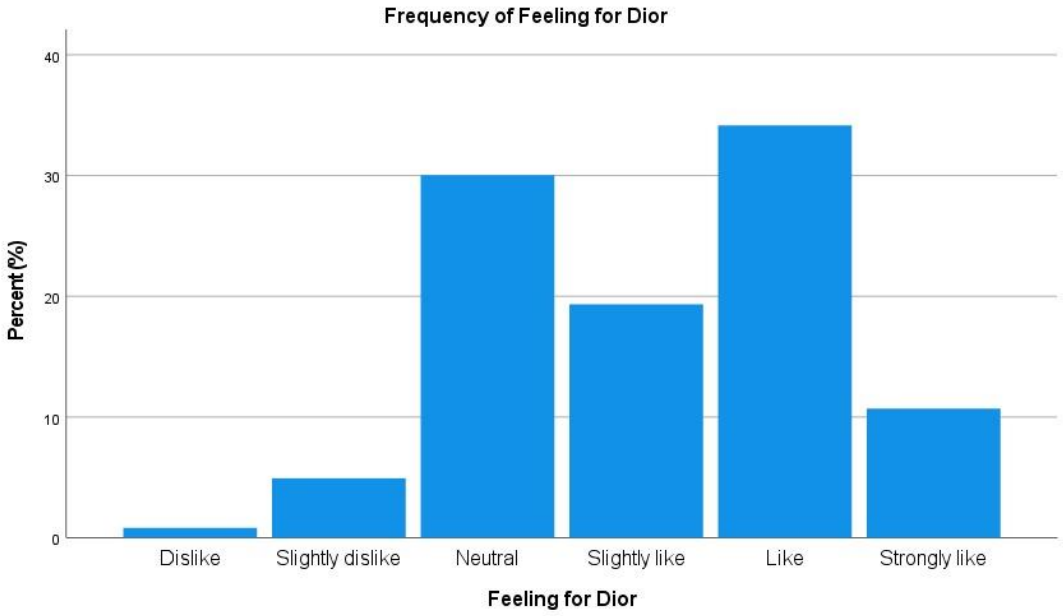


Figure 12 - Frequency of Feeling for Dior

Frequency of Familiarity with "Supply Chain Transparency"

	Frequency	Percent (%)	Cumulative Percent (%)
1 = strongly unfamiliar	17	7.0	7.0
2 = unfamiliar	41	16.9	23.9
3 = slightly unfamiliar	25	10.3	34.2
4 = neutral	23	9.5	43.6
5 = slightly familiar	65	26.7	70.4
6 = familiar	56	23.0	93.4
7 = strongly familiar	16	6.6	100.0
Total	243	100.0	

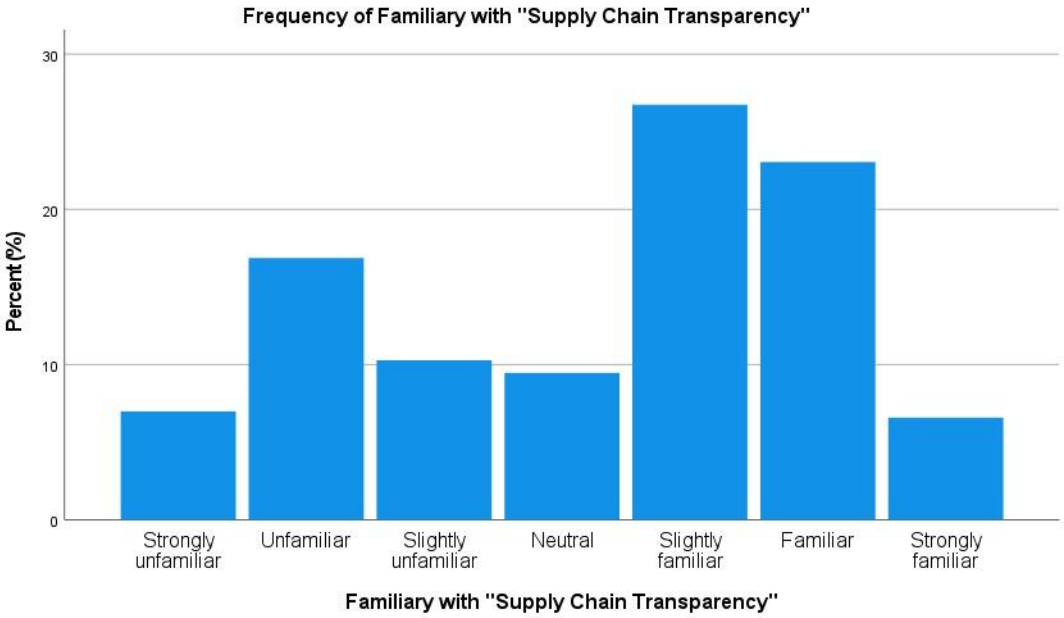


Figure 13 - Frequency of Familiarity with "Supply Chain Transparency"

Frequency of Familiarity with "Supply Chain Sustainability"

	Frequency	Percent (%)	Cumulative Percent (%)
1 = strongly unfamiliar	11	4.5	4.5
2 = unfamiliar	24	9.9	14.4
3 = slightly unfamiliar	18	7.4	21.8
4 = neutral	21	8.6	30.5
5 = slightly familiar	83	34.2	64.6
6 = familiar	62	25.5	90.1
7 = strongly familiar	24	9.9	100.0
Total	243	100.0	

Figure 14 – Frequency of Familiarity with "Supply Chain Sustainability"

BT score ranges from 5 to 35, and the average is around 21.79 (SD = 5.464) (Figure 15). The median (M = 22) being close to the mean (Mdn = 21.79) is a characteristic of a normally distributed variable.

A sample characterization was also done for each of the six stimuli, which are independent samples (Table 4). Most respondents are either between 18 and 24 or 25 and 34, employed full-time or students, earn either less than €1,000 or between €1,001 and €2,000, like Dior, and feel familiar with the concepts of "Supply Chain Transparency" and "Supply Chain Sustainability".

Statistics for BT

N		243
Mean		21.79
Std. Error of Mean		0.351
Median		22.00
Mode		20
Std. Deviation		5.464
Variance		29.861
Range		30
Minimum		5
Maximum		35
Sum		5295
Percentiles	25	19.00
	50	22.00
	75	25.00

Distribution of BT

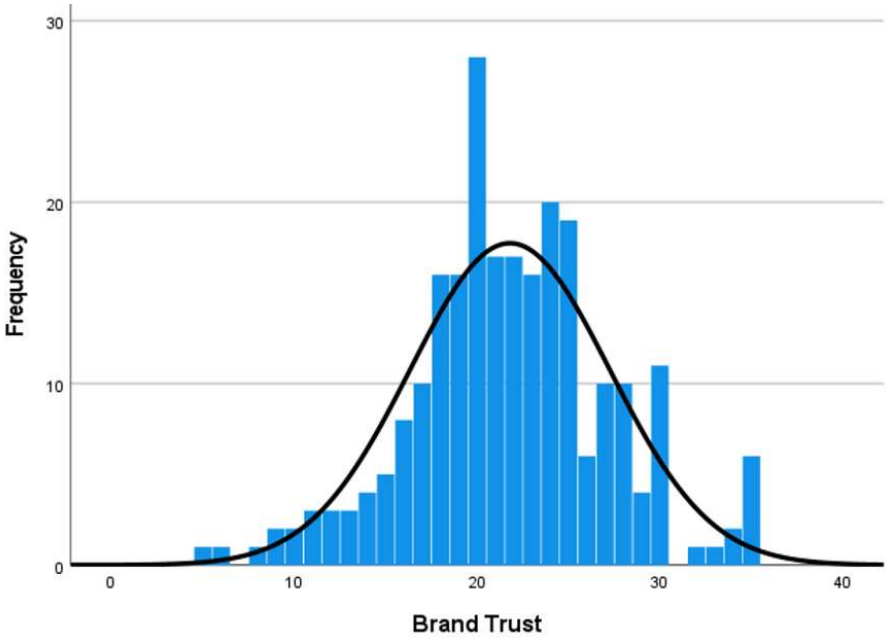


Figure 15 - Distribution of BT

Table 4 - Frequency of each variable for each stimulus

	Stimulus 1		Stimulus 2		Stimulus 3		Stimulus 4		Stimulus 5		Stimulus 6	
Age	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Under 18	1	2	0	0	1	3	1	2	0	0	0	0
18-24 years old	29	59.2	16	40.0	17	45.9	20	48.8	15	38.5	22	59.5
25-34 years old	15	30.6	22	55.0	16	43.2	15	36.6	19	48.7	8	21.6
35-44 years old	1	2.0	1	2.5	1	2.7	2	4.9	2	5.1	1	2.7
45-54 years old	3.0	6.1	0.0	0.0	1.0	2.7	3.0	7.3	2.0	5.1	2.0	5.4
55-64 years old	0.0	0.0	1.0	2.5	1.0	2.7	0.0	0.0	1.0	2.6	4.0	10.8
64+ years old	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**49**	**100.0**	**40**	**100.0**	**37**	**100.0**	**41**	**100.0**	**39**	**100.0**	**37**	**100.0**

	Stimulus 1		Stimulus 2		Stimulus 3		Stimulus 4		Stimulus 5		Stimulus 6	
Employment Status	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Employed Full-Time	22	45	23	58	17	46	20	48.8	20	51.3	16	43.2
Employed Part-Time	1	2.0	0	0.0	1	2.7	0	0.0	0	0.0	0	0.0
Student	25	51.0	14	35.0	15	40.5	19	46.3	17	43.6	19	51.4
Retired	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.7
Unemployed	0.0	0.0	1.0	2.5	2.0	5.4	1.0	2.4	1.0	2.6	0.0	0.0
Other	1.0	2.0	2.0	5.0	2.0	5.4	1.0	2.4	1.0	2.6	1.0	2.7
Total	**49.0**	**100.0**	**40.0**	**100.0**	**37.0**	**100.0**	**41.0**	**100.0**	**39.0**	**100.0**	**37.0**	**100.0**

	Stimulus 1		Stimulus 2		Stimulus 3		Stimulus 4		Stimulus 5		Stimulus 6	
Individual Monthly Gross Income	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Less than €1,000	18	36.7	8	20.0	6	16.2	7	17.1	14	35.9	14	37.8
€1,001 - €2,000	14	28.6	17	42.5	14	37.8	16	39.0	8	20.5	8	21.6
€2,001 - €3,000	5	10.2	5	12.5	4	10.8	5	12.2	8	20.5	4	10.8
€3,001 - €4,000	4	8.2	2	5.0	2	5.4	5	12.2	2	5.1	3	8.1
€4,001 - €5,000	3.0	6.1	3.0	7.5	2.0	5.4	0.0	0.0	1.0	2.6	2.0	5.4
Above €5,000	1.0	2.0	3.0	7.5	1.0	2.7	3.0	7.3	3.0	7.7	1.0	2.7
Prefer not to answer	4.0	8.2	2.0	5.0	8.0	21.6	5.0	12.2	3.0	7.7	5.0	13.5
Total	**49.0**	**100.0**	**40.0**	**100.0**	**37.0**	**100.0**	**41.0**	**100.0**	**39.0**	**100.0**	**37.0**	**100.0**

	Stimulus 1		Stimulus 2		Stimulus 3		Stimulus 4		Stimulus 5		Stimulus 6	
Feeling for Dior	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Dislike	0	0.0	0	0.0	1	2.7	0	0.0	1	2.6	0	0.0
Slightly dislike	2	4.1	3	7.5	3	8.1	3	7.3	0	0.0	1	2.7
Neutral	12	24.5	17	42.5	8	21.6	13	31.7	10	25.6	13	35.1
Slightly like	8	16.3	3	7.5	7	18.9	9	22.0	12	30.8	8	21.6
Like	21.0	42.9	12.0	30.0	14.0	37.8	13.0	31.7	11.0	28.2	12.0	32.4
Strongly like	6.0	12.2	5.0	12.5	4.0	10.8	3.0	7.3	5.0	12.8	3.0	8.1
Total	**49.0**	**100.0**	**40.0**	**100.0**	**37.0**	**100.0**	**41.0**	**100.0**	**39.0**	**100.0**	**37.0**	**100.0**

	Stimulus 1		Stimulus 2		Stimulus 3		Stimulus 4		Stimulus 5		Stimulus 6	
Familiarity with "Suppy Chain Transparency"	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Strongly unfamiliar	2	4.1	5	12.5	4	10.8	3	7.3	1	2.6	2	5.4
Unfamiliar	7	14.3	4	10.0	10	27.0	6	14.6	7	17.9	7	18.9
Slightly unfamiliar	4	8.2	6	15.0	3	8.1	3	7.3	4	10.3	5	13.5
Neutral	4	8.2	4	10.0	3	8.1	7	17.1	3	7.7	2	5.4
Slightly familiar	18.0	36.7	9.0	22.5	8.0	21.6	11.0	26.8	11.0	28.2	8.0	21.6
Familiar	10.0	20.4	11.0	27.5	6.0	16.2	10.0	24.4	10.0	25.6	9.0	24.3
Strongly familiar	4	8.2	1	2.5	3	8.1	1	2.4	3	7.7	4	10.8
Total	**49.0**	**100.0**	**40.0**	**100.0**	**37.0**	**100.0**	**41.0**	**100.0**	**39.0**	**100.0**	**37.0**	**100.0**

	Stimulus 1		Stimulus 2		Stimulus 3		Stimulus 4		Stimulus 5		Stimulus 6	
Familiarity with "Suppy Chain Sustainability"	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Strongly unfamiliar	1	2.0	2	5.0	3	8.1	3	7.3	0	0.0	2	5.4
Unfamiliar	4	8.2	4	10.0	7	18.9	2	4.9	3	7.7	4	10.8
Slightly unfamiliar	5	10.2	2	5.0	3	8.1	1	2.4	4	10.3	3	8.1
Neutral	3	6.1	3	7.5	3	8.1	3	7.3	7	17.9	2	5.4
Slightly familiar	17.0	34.7	16.0	40.0	10.0	27.0	17.0	41.5	10.0	25.6	13.0	35.1
Familiar	13.0	26.5	11.0	27.5	6.0	16.2	13.0	31.7	10.0	25.6	9.0	24.3
Strongly familiar	6	12.2	2	5.0	5	13.5	2	4.9	5	12.8	4	10.8
Total	**49.0**	**100.0**	**40.0**	**100.0**	**37.0**	**100.0**	**41.0**	**100.0**	**39.0**	**100.0**	**37.0**	**100.0**

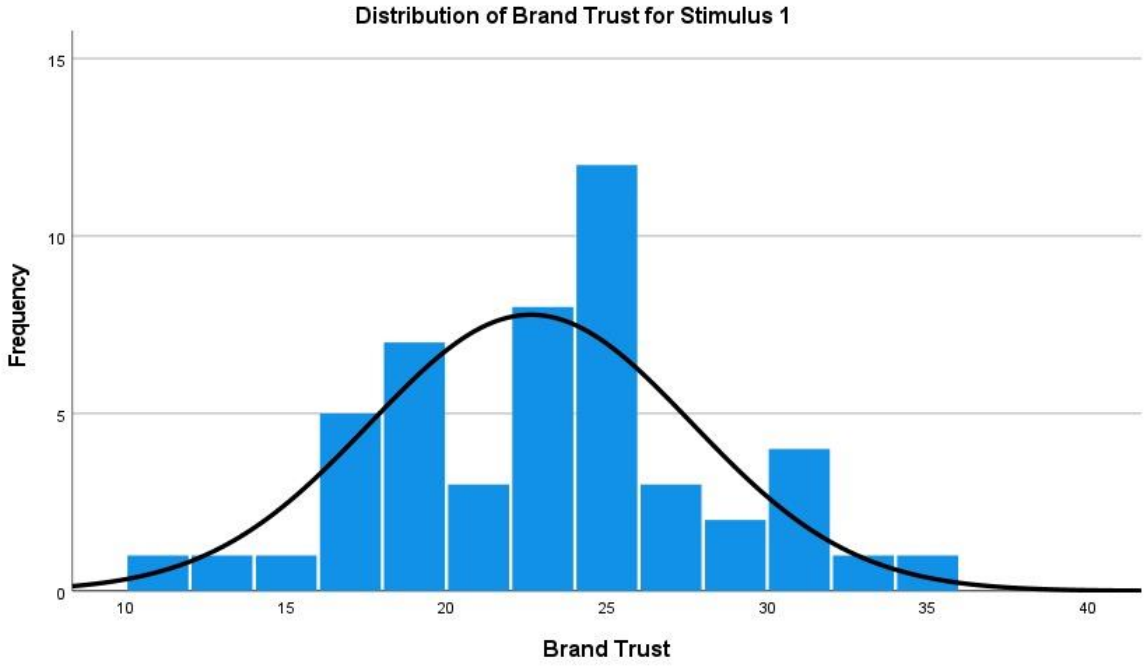
Next, the distribution of the BT score for each stimulus was analyzed. Table 5 summarizes the statistics.

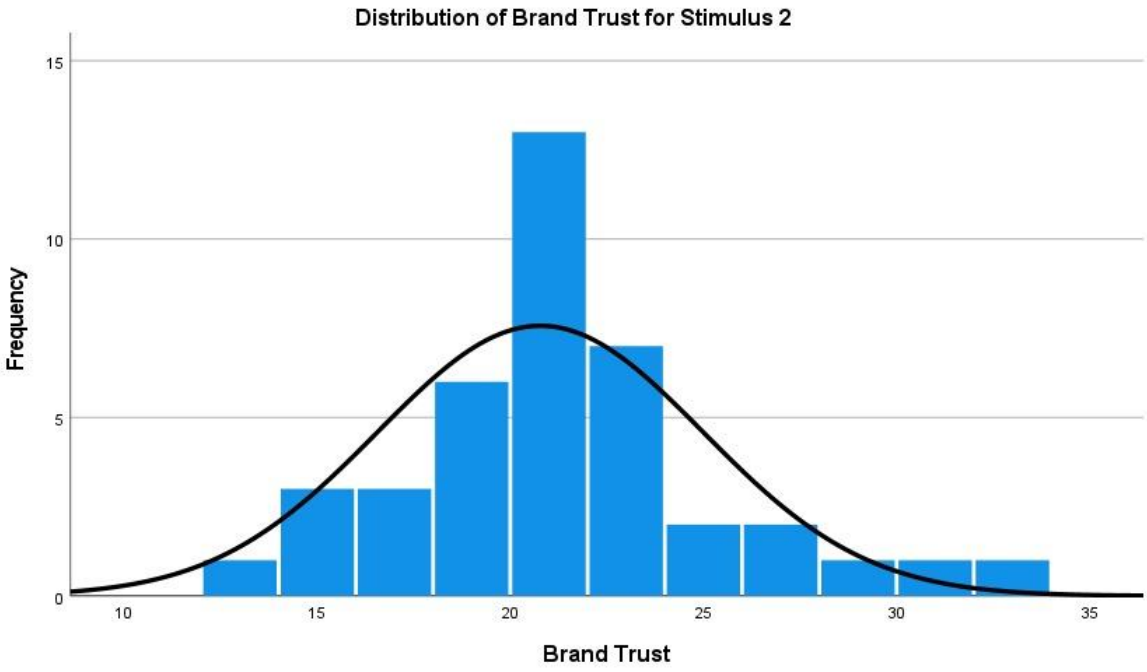
Table 5 - Statistics of BT for each stimulus

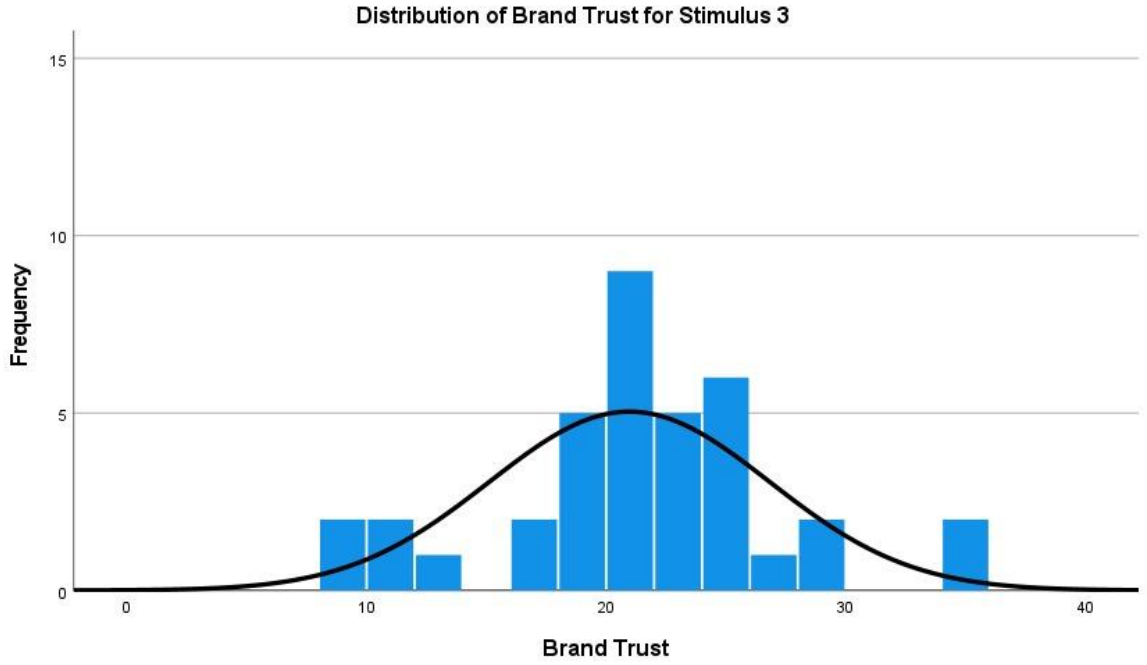
	Stimulus 1	Stimulus 2	Stimulus 3	Stimulus 4	Stimulus 5	Stimulus 6
Mean	22.633	20.775	20.973	20.780	23.564	21.838
Median	23.000	20.000	20.000	20.000	24.000	22.000
Mode	24.000	20.000	20.000	16.000	25.000	24.000
Std. Deviation	5.024	4.215	5.857	6.905	4.477	5.659
Skewness	0.010	0.771	-0.030	0.006	-0.639	0.208
Minimum	11.000	13.000	9.000	5.000	10.000	11.000
Maximum	35.000	33.000	35.000	35.000	30.000	35.000
Z	0.029	1.990	0.075	0.015	1.628	0.515
Total	**49**	**40**	**37**	**41**	**39**	**37**

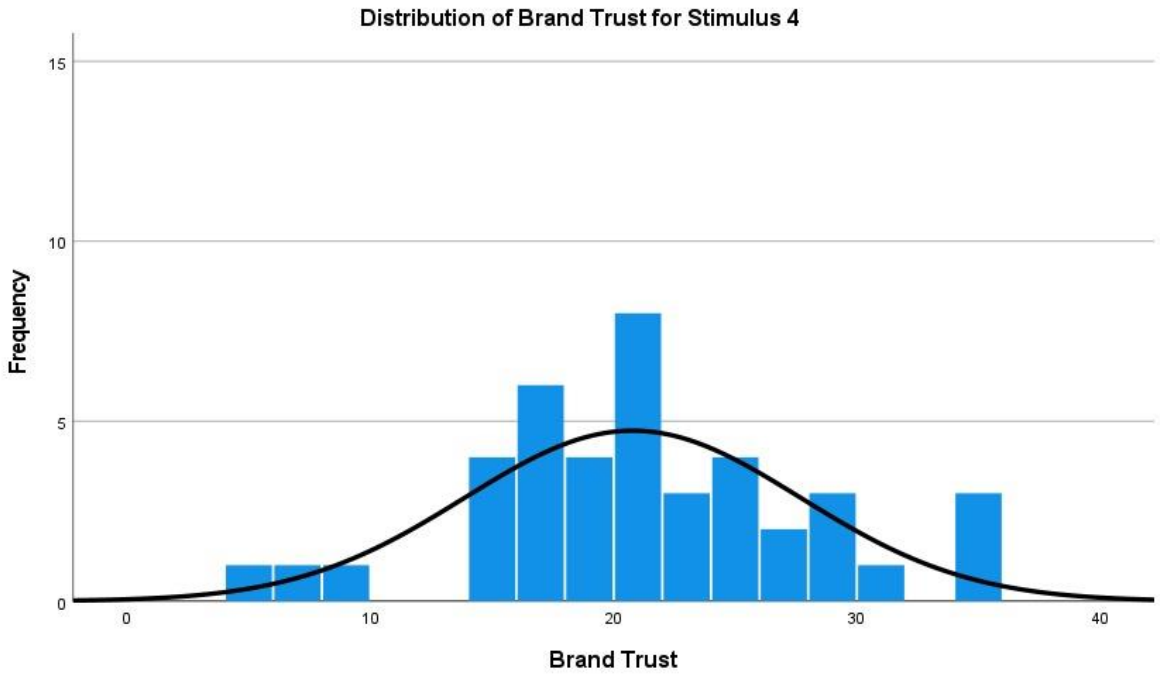
It is possible to conclude that the BT score for each stimulus follows a somewhat normal distribution:

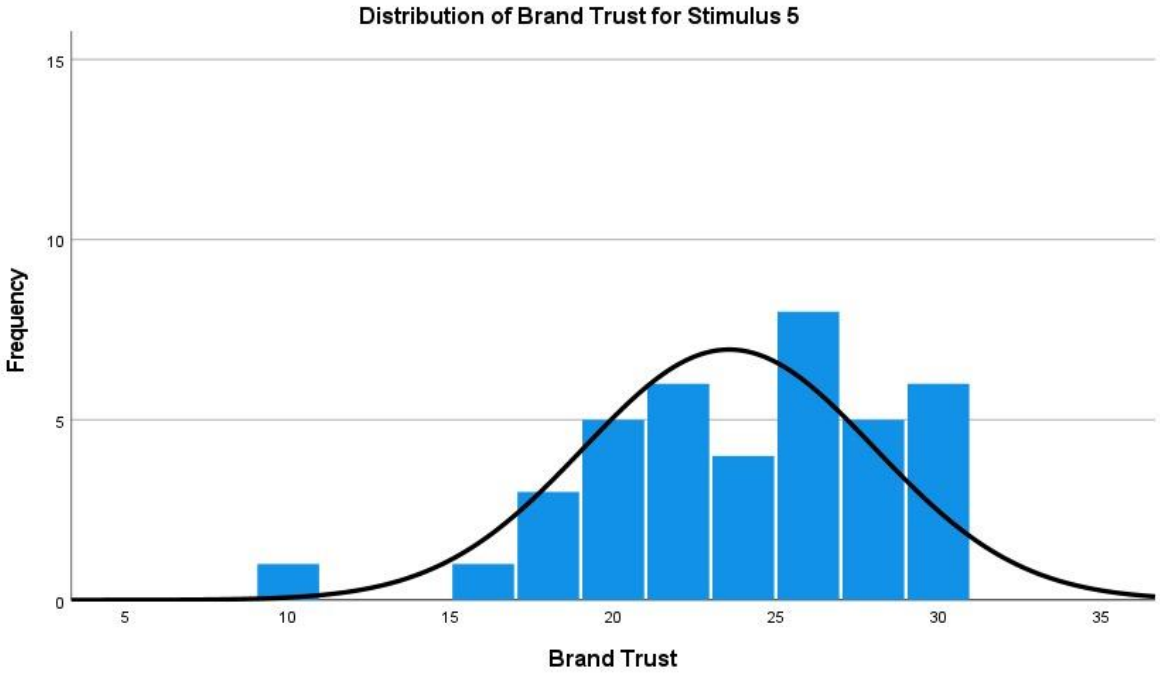
- They roughly present a symmetric bell-shaped curve (Figure 16).
- The mean, median, and mode are relatively close to each other.
- For smaller samples (n<50), when the absolute z-score for skewness (Z) is larger than 1.96, the distribution is not considered normal (H.-Y. Kim, 2013). Z is calculated as Skewness/Standard Error of Skewness, where Standard Error of Skewness = $\sqrt{6}/n$ and n = sample size. Only stimulus 2 slightly deviates.




Distribution of Brand Trust for Stimulus 2
Frequency
15
10
5
0
10
15
20
25
30
35
Brand Trust


Distribution of Brand Trust for Stimulus 3
Frequency
15
10
5
0
0
10
20
30
40
Brand Trust


Distribution of Brand Trust for Stimulus 4
Frequency
15
10
5
0
0
10
20
30
40
Brand Trust


Distribution of Brand Trust for Stimulus 5
Frequency
15
10
5
0
5
10
15
20
25
30
35
Brand Trust

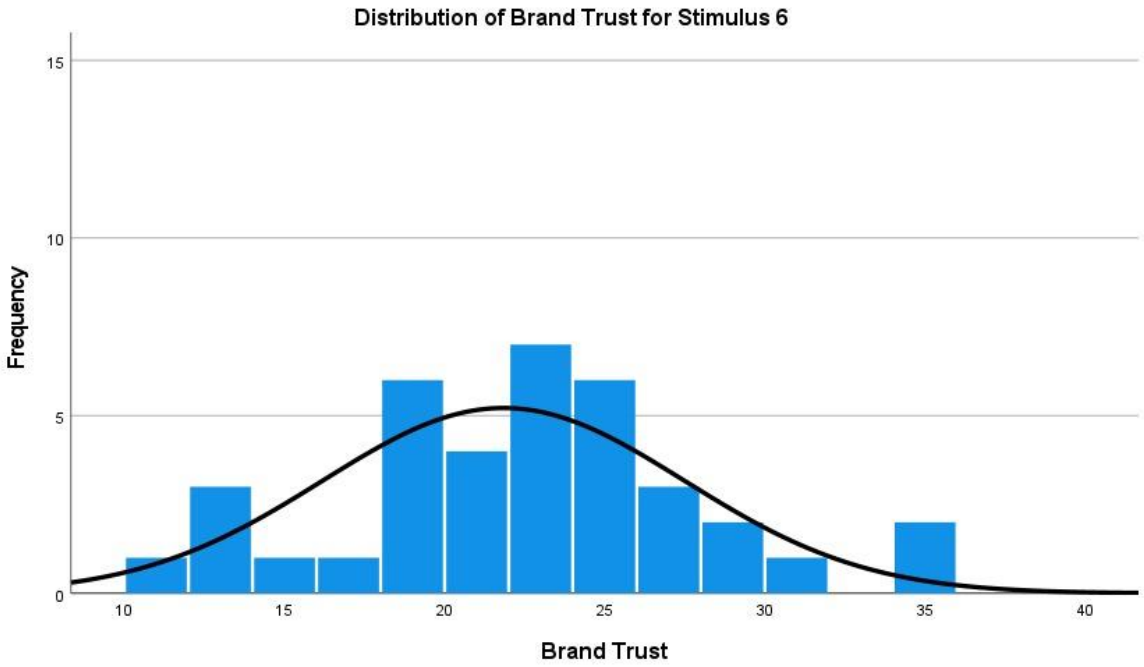


Figure 16 - Distribution of BT for each stimulus

4.2 Relationships between variables

As expected, the more respondents like Dior, the more they trust the brand. The average BT score for respondents who "strongly like" Dior is 28.15, and for the ones who "dislike" the brand is 17 (Table 6).

Table 6 - Relationship between BT and Feeling for Dior

Brand Trust & Feeling for Dior

Feeling for Dior	Mean	N	Std. Deviation	% of Total N
2 = dislike	17.00	2	11.314	0.8%
3 = slightly dislike	16.00	12	4.690	4.9%
4 = neutral	19.21	73	4.450	30.0%
5 = slightly like	21.13	47	4.342	19.3%
6 = like	23.40	83	4.643	34.2%
7 = strongly like	28.15	26	4.781	10.7%
Total	21.79	243	5.464	100.0%

Older respondents presented higher BT than younger ones (Table 7).

Table 7 - Relationship between BT and Age

Brand Trust & Age

Age	Mean	N	Std. Deviation	% of Total N
Under 18	22.00	3	5.568	1.2%
18-24 years old	21.84	119	5.186	49.0%
25-34 years old	21.13	95	5.292	39.1%
35-44 years old	22.25	8	8.681	3.3%
45-54 years old	24.09	11	6.906	4.5%
55-64 years old	25.71	7	4.889	2.9%
Total	21.79	243	5.464	100.0%

Trust increases with a higher income, peaks at the range of €2,001 to €3,000 (23.19), and then decreases again (Table 8).

Table 8 - Relationship between BT and Individual Monthly Gross Income

Individual Monthly Gross Income	Mean	N	Std. Deviation	% of Total N
Less than 1.000€	21.39	67	5.826	27.6%
€1.000 - €2.000	22.00	77	4.928	31.7%
€2.001 - €3.000	23.19	31	6.145	12.8%
€3.001 - €4.000	21.89	18	5.389	7.4%
€4.001 - €5.000	21.09	11	4.230	4.5%
Above €5.000	21.58	12	5.125	4.9%
Prefer not to answer	20.89	27	6.021	11.1%
Total	21.79	243	5.464	100.0%

Table 9 summarizes the relationship between the three main variables: BT, SCI, and LL. The average BT for the accessible LL is 22.43 (SD=5.189), while for the inaccessible LL is lower, 21.11 (SD=5.685). The average BT for the scenarios where SCI presents both transparency and sustainability (stimuli 5 and 6) is 22.72 (SD=5.127), while for the scenarios where there is only transparency, but no sustainability (stimuli 3 and 4) is lower, 20.87 (SD=6.389), which was

expected. However, the sample with the scenarios showcasing no transparency or sustainability (stimuli 1 and 2) has generically a higher BT, 21.80 (SD=4.744) than the one with only transparency, but no sustainability (20.87), which is not what was expected. Nevertheless, the score for transparency but no sustainability (21.80) is still lower than for both transparency and sustainability (22.72).

Figure 17 visually summarizes the BT score for each stimulus, where each line (representing each LL) was expected to increase between each SCI category (with the addition of transparency and sustainability). Instead, for the accessible LL, the average BT is 22.63 for the scenarios displaying no transparency or sustainability, which is higher than for only transparency, but no sustainability (20.97), which was not expected. However, 20.97 is lower than the score for both transparency and sustainability (23.56), which was expected. For the inaccessible LL, the average BT is 20.78 for the cases without transparency or sustainability, which is equal to the scenarios with only transparency, but no sustainability, which was not expected. However, 20.78 is lower than the score for both transparency and sustainability (21.84), which was expected.

Table 9 - Relationship between the three main variables: BT, SCI, and LL

Luxury Level	Supply Chain Information	Mean	N	Std. Deviation
Accessible	No Transparency, No Sustainability	22.63	49	5.024
	Transparency, No Sustainability	20.97	37	5.857
	Transparency, Sustainability	23.56	39	4.477
	Total	22.43	125	5.189
Inaccessible	No Transparency, No Sustainability	20.78	40	4.215
	Transparency, No Sustainability	20.78	41	6.905
	Transparency, Sustainability	21.84	37	5.659
	Total	21.11	118	5.685
Total	No Transparency, No Sustainability	21.80	89	4.744
	Transparency, No Sustainability	20.87	78	6.389
	Transparency, Sustainability	22.72	76	5.127
	Total	21.79	243	5.464

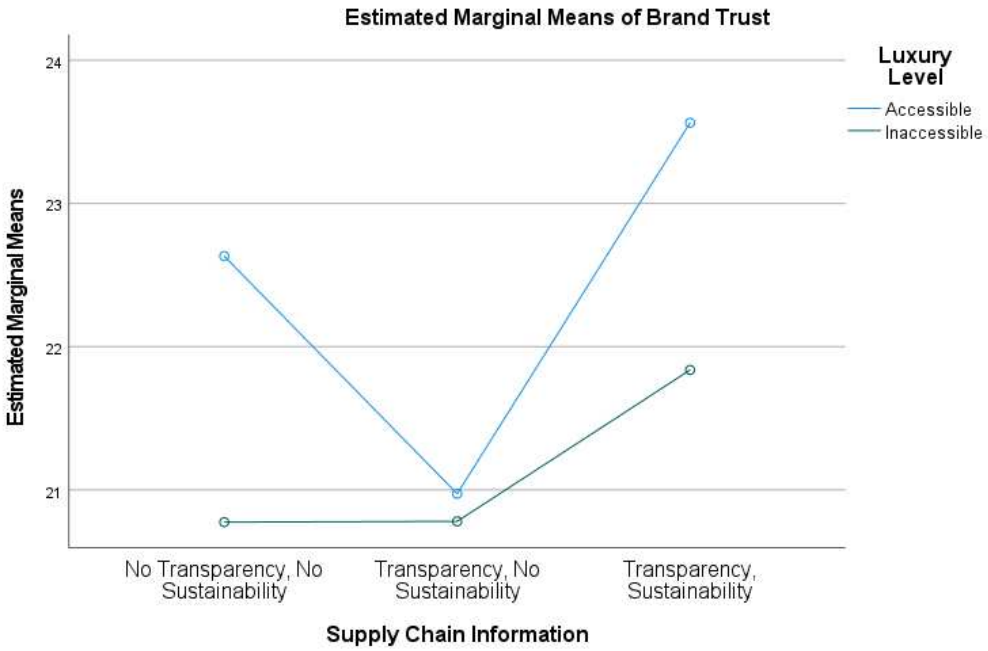
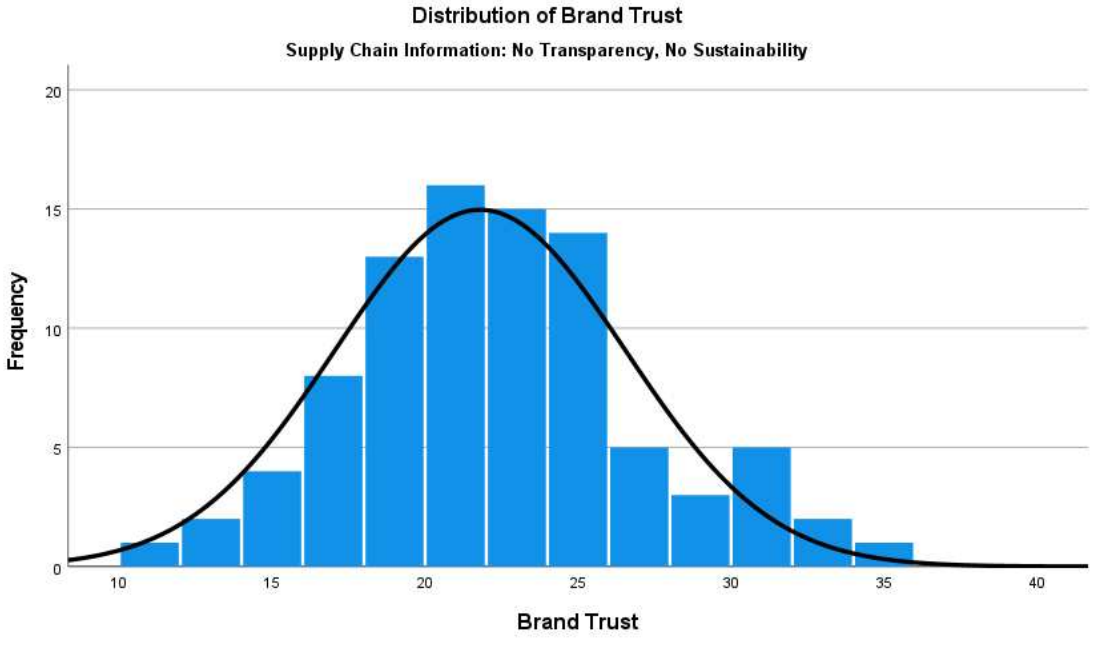
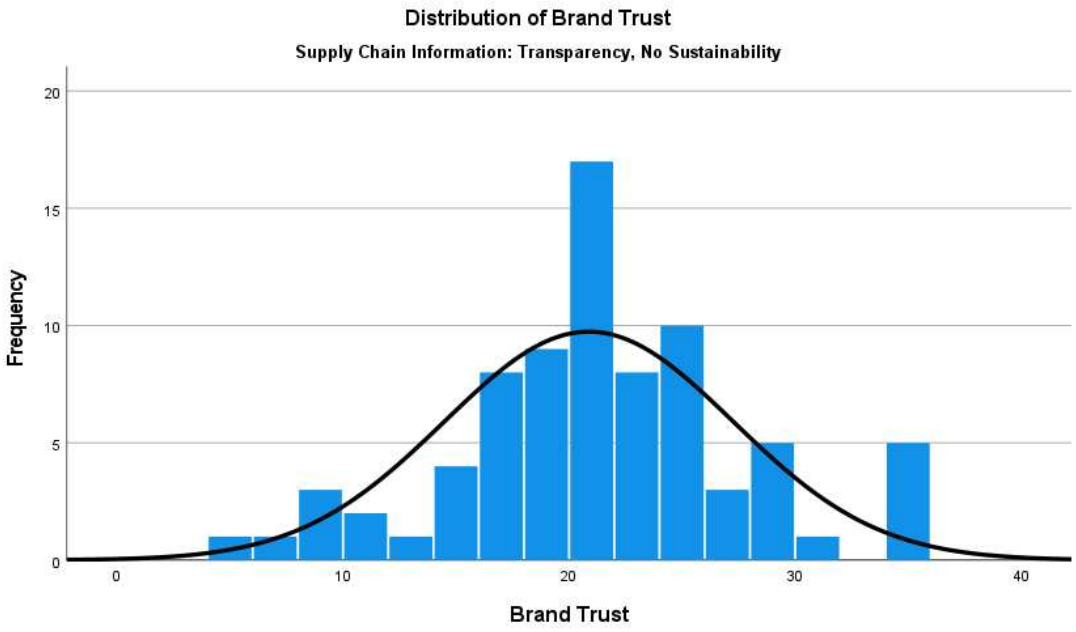


Figure 17 - BT scores for each stimulus

The distribution of BT for each category of both SCI and LL was also analyzed, to ensure that they were close to a normal distribution:

- Symmetric bell-shaped curve (Figure 18 and Figure 19).
- Close mean, median, and mode (Table 10 and Table 11).
- Z < 1.96. Only the accessible LL slightly deviates.





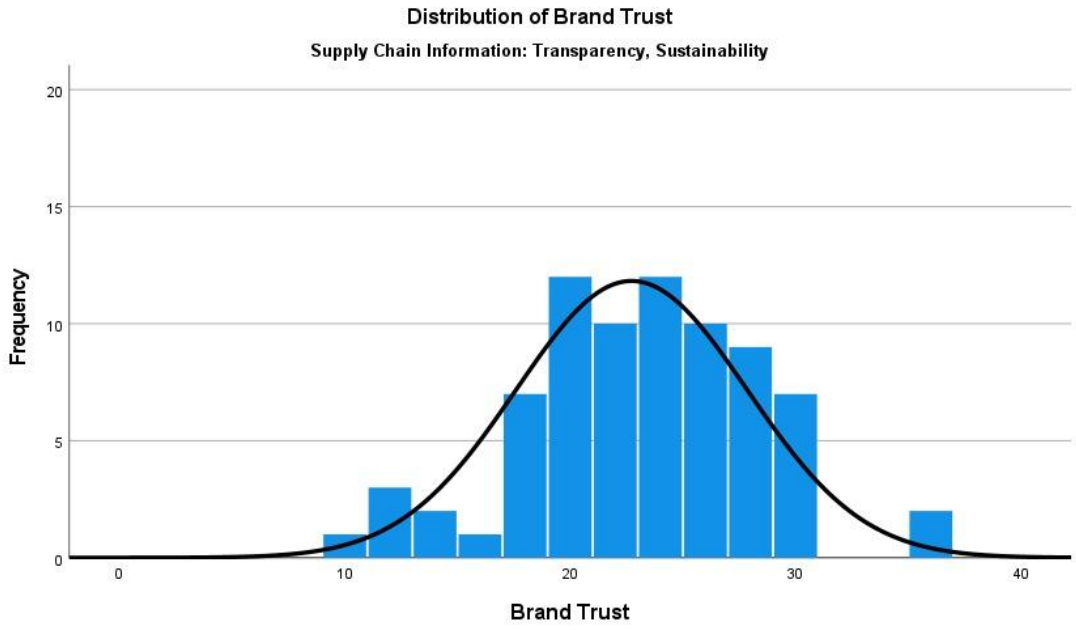


Figure 18 - Distribution of BT for each category of SCI

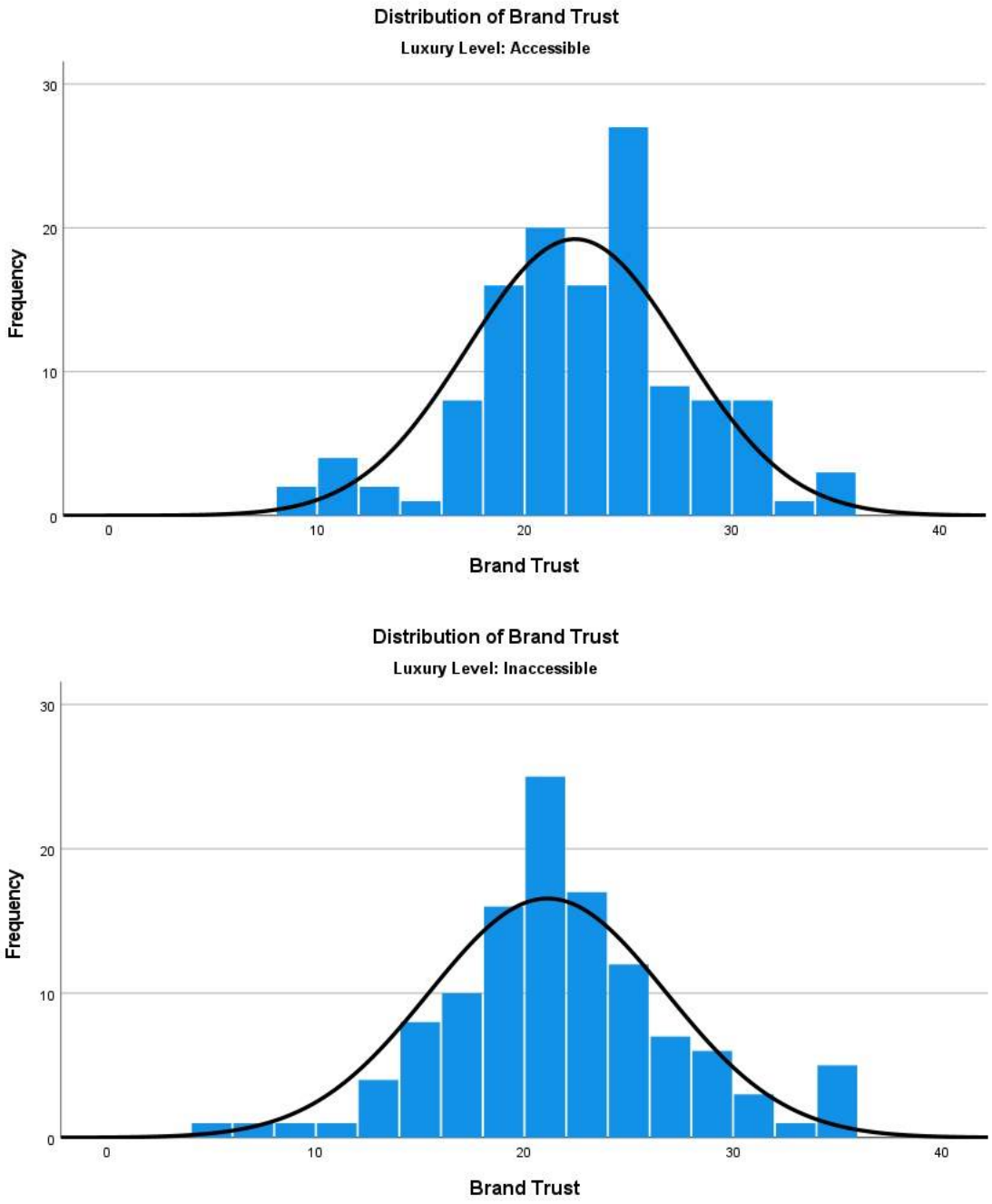


Figure 19 - Distribution of BT for each category of LL

Table 10 - Summary statistics of BT for each category of SCI

Brand Trust & Supply Chain Information

	No T, No S	T, No S	T, S
Mean	21.798	20.872	22.724
Median	22.000	20.000	23.000
Mode	20.000	20.000	20.000
Std. Deviation	4.744	6.389	5.127
Skewness	0.337	-0.014	-0.196
Minimum	11.000	5.000	10.000
Maximum	35.000	35.000	35.000
Z	1.834	0.074	0.988
Total	**89**	**78**	**76**

Table 11 - Summary statistics of BT for each category of LL

Brand Trust & Luxury Level

	Accessible	Inaccessible
Mean	22.432	21.110
Median	23.000	21.000
Mode	25.000	20.000
Std. Deviation	5.189	5.685
Skewness	-0.256	0.163
Minimum	9.000	5.000
Maximum	35.000	35.000
Z	2.022	1.249
Total	**125**	**118**

4.3 Reliability

Despite the BT scale used in this study having been validated by previous literature, a Cronbach's alpha test was conducted on the construct, to measure its reliability. A value of 0.864 (very close to 0.9) indicates that the 5 items used on this scale are highly reliable measures for predicting the actual variable BT. The Cronbach's alpha, if an item is deleted, ranges from 0.803 to 0.853 for the 5 items, indicating stability in case an item is removed, contributing to the high reliability of the scale.

4.4 Manipulation Check

A manipulation check was conducted to assess if the independent variables SCI and LL were effectively "manipulated", i.e., if the stimuli were perceived by the respondents the way they were supposed to be.

For the LL, an independent samples t-test was performed, resulting in a statistically significant difference between the two categories for both manipulation questions ($p < 0.001$), meaning that the manipulation check was successful. i.e., the participants were able to distinguish between both LLs.

When it comes to SCI, One-Way ANOVA was conducted, revealing partial success: while most stimuli were perceived as intended ($p < 0.001$), for the manipulation question "The information on the product showcases supply chain transparency but no sustainability.", there was no statistically significant difference between the conditions "No Transparency, No Sustainability" and "Transparency, Sustainability" ($p = 0.626$), suggesting that participants may have struggled to distinguish between these two scenarios.

4.5 Hypotheses Testing

In this section, the hypotheses will be answered. Inferences about the population were performed based on the sample data. Both ANOVA, to compare different group means, and linear regression analysis, to model relationships between variables and assess the effect/impact of the independent variables on the dependent variable, were used. A moderated regression analysis was performed to examine the moderating role of the LL.

For the hypotheses:

- $\mu_{NoTransp,\ NoSust} = 21.80$ represents the mean BT for the group with no transparency and no sustainability.
- $\mu_{Transp,\ NoSust} = 20.87$ represents the mean BT for the group with transparency but no sustainability.
- $\mu_{Transp,\ Sust} = 22.72$ represents the mean BT for the group with both transparency and sustainability.
- $\mu_{Acc} = 22.43$ represents the mean BT for the group with the perfume.

- μ_{Ina} = 21.11 represents the mean BT for the group with the high-end jewelry.
- μ_{Sti_1} = 22.63 represents the mean BT for the group with stimulus 1.
- μ_{Sti_2} = 20.78 represents the mean BT for the group with stimulus 2.
- μ_{Sti_3} = 20.97 represents the mean BT for the group with stimulus 3.
- μ_{Sti_4} = 20.78 represents the mean BT for the group with stimulus 4.
- μ_{Sti_5} = 23.56 represents the mean BT for the group with stimulus 5.
- μ_{Sti_6} = 21.84 represents the mean BT for the group with stimulus 6.

$\mu_{NoTransp,\ NoSust} < \mu_{Transp,\ NoSust} < \mu_{Transp,\ Sust}$ was expected. However, the observed data showed $\mu_{Transp,\ NoSust} < \mu_{NoTransp,\ NoSust} < \mu_{Transp,\ Sust}$, i.e., $\mu_{Transp,\ NoSust} < \mu_{NoTransp,\ NoSust}$, which is the opposite of H_{11a}'s assumption. Nevertheless, we cannot reject H_{01a} since the results for ANOVA were not significant. A One-Way ANOVA was conducted to assess if there was a statistically significant difference in BT score among the three different scenarios (groups) of the SCI. The result for Levene's Test was not significant ($F(2, 240) = 1.894$, $p = 0.153$), i.e., homogeneity of variances across groups was assumed. The ANOVA results show no statistically significant difference in BT across the three groups: $F(2, 240) = 2.233$, $p = 0.109$. Therefore, we also do not reject H_{01b} or H_{01c}. Hence, there is a suggestion that these different scenarios of SCI do not have an impact on BT.

Since the results from ANOVA were not significant for hypotheses H1a, H1b, and H1c, there is already a suggestion that there will be no significant effects of SCI on BT. However, a linear regression analysis was conducted to confirm expectations. To answer hypotheses H1d, H1f, and H1e, two dummy variables were created for SCI:

- "Dummy_Transparency_No_Sustainability, which is "1" when "SCI = Transparency, No Sustainability" and "0" otherwise,
- "Dummy_Transparency_Sustainability", which is "1" when "SCI = Transparency, Sustainability" and "0" otherwise.

Linear regression analysis was performed with the following Model 1:

Model 1:

$BT = \beta_0 +$

β_1(Dummy_Transparency_No_Sustainability) +

β_2(Dummy_Transparency_Sustainability)

The following beta coefficients and significance levels resulted, which led to the conclusions:

- $\beta_0 = 21.798$ (CI [20.662, 2.933]) and $p < 0.001$ means that the average BT when "No Transparency, No Sustainability" is 21.798, and the high statistical significance suggests that this coefficient is significantly different from zero, and the dependent variable BT is reliably estimated by it.
- $\beta_1 = - 0.926$ (CI [- 2.587, 0.735]), p= 0.273, standardized beta = - 0.079, means that BT is, on average, 0.926 lower when "Transparency, No Sustainability" than when "No Transparency, No Sustainability" (not what was expected). Since the coefficient is not statistically significant, it is not possible to conclude that BT is indeed lower.
- $\beta_2 = 0.926$ (CI [- 0.747, 2.599]), p = 0.277, standardized beta = 0.079, means that BT is, on average, 0.926 higher when "Transparency, Sustainability" than when "No Transparency, No Sustainability". Since the coefficient is not statistically significant, it is not possible to conclude that BT is indeed higher.

The model does not fit the data well, since the results show a non-significant F-statistic, a low R^2 and Adjusted R^2, and a high standard error of the estimate:

- F (2, 240) = 2.233, p = 0.109.
- $R^2 = 0.018$ (SCI explains only 1.8% of the variance in BT).
- Adjusted $R^2 = 0.010$ (SCI explains only 1% of the variance in BT when accounting for the number of predictors).
- The standard error of the estimate = 5.437.

It is possible to conclude that the independent variable SCI does not significantly explain the variation in the dependent variable BT, thus, it is not a good predictor of it. This conclusion already suggests that there is no necessity to investigate the possible moderating effect of LL on the relationship between Supply Chain Transparency and BT. However, out of curiosity, this will be done to complete the analysis. Therefore, we cannot reject H_{01d} or H_{01e}, i.e., there is not enough evidence that SCI with transparency but without sustainability or SCI with transparency and sustainability have a more positive impact on BT compared to the absence of both transparency and sustainability. Since neither β_1 nor β_2 is significantly different from zero (there is no need to assess if the difference between each coefficient is significant), we also cannot reject H_{01f}, meaning that there is not enough evidence that SCI with transparency and sustainability has a significantly greater positive effect on BT compared to SCI with transparency and no sustainability.

To answer H2a, an independent samples t-test was performed. Homogeneity of variances was assumed since the result for Levene's test was F (1, 241) = 0.193, p = 0.661. The outcome of the t-test suggests a statistically significant difference between the two groups, the accessible (M = 22.43, SD = 5.189) and the inaccessible (M = 21.11, SD = 5.685): t (241) = 1.895, p = 0.030, and the mean difference was 1.322 (CI [-0.052, 2.696]). However, Cohen's d of 0.243 (CI [-0.010, 0.495]) suggests a small effect size. Therefore, H_{02a} is rejected, meaning that it is unlikely that this difference in means occurred by chance. There is an indication that, on average, participants demonstrate a higher BT for accessible luxury products than for inaccessible luxury ones.

To answer H2b, running a linear regression allowed exploring if LL had a significant effect on BT. A dummy variable was created for LL ("Dummy_Inaccessible", which is "1" when LL = Inaccessible and "0" otherwise), and a regression analysis was conducted with the following model 2:

Model 2:

$BT = \beta_0 +$

β_1(Dummy_Inaccessible)

The following beta coefficients and significance levels resulted, which led to the conclusions:

- $\beta_0 = 22.432$ (CI [21.474, 23.390]) and $p < 0.001$ means that the average BT when "LL = Accessible" is 22.432, and the high statistical significance suggests that this coefficient is significantly different from zero, and the dependent variable BT is reliably estimated by it.
- $\beta_1 = - 1.322$ (CI [- 2.696, 0.052]), p = 0.059, standardized beta = - 0.121, which means that BT is, on average, 1.322 units lower for "Inaccessible" than for "Accessible". Since the coefficient is not statistically significant, it is not possible to conclude that BT is indeed lower.

The model does not fit the data well, since the results show a non-significant F-statistic, a low R^2 and Adjusted R^2, and a high standard error of the estimate:

- F (1, 241) = 3.590, p = 0.059.
- $R^2 = 0.015$ (only 1.5% of the variance in BT is explained by the LL).

- Adjusted $R^2 = 0.011$ (only 1.1% of the variance in BT is explained by the LL, when accounting for the number of predictors).
- The standard error of the estimate = 5.435.

It is not possible to conclude that the independent variable LL significantly explains the variation in the dependent variable BT, thus, it is not a good predictor of it. Therefore, we cannot reject H_{02b}.

For H3a, a Two-Way ANOVA was conducted to assess if there was a statistically significant difference in BT among the six stimuli (possible combinations of SCI and LL). The result for Levene's Test was not significant (F (3, 239) = 2,400, p = 0.068), meaning that homogeneity of variances across groups could be assumed. The results for the ANOVA show that:

- There was no statistically significant difference in BT for the SCI: F (2, 237) = 2.182, p = 0.115, and $\eta^2 = 0.018$ reflected a small effect.
- There was no statistically significant difference in BT for the LL: F (2, 237) = 3.248, p = 0.073, and $\eta^2 = .014$ reflected a small effect.
- There was no statistically significant difference in BT for the interaction term SCI*LL: F (2, 237) = 0.581, p = 0.560, and $\eta^2 = .005$ reflected a very small effect.

Hence, there is a suggestion that the different stimuli do not have an impact on BT. Therefore, we do not reject H_{03a}. It seems that the LL does not influence how SCI impacts BT. Thus, there is already a suggestion that there will be no significant effects of the interaction between SCI and LL on BT. However, to answer H3b, H3c, and H3d, and confirm expectations, a linear regression analysis (with an interaction effect) was conducted with the following model 3:

Model 3:

$$BT = \beta_0 + \beta_1(\text{Dummy\_Transparency\_No\_Sustainability}) + \beta_2(\text{Dummy\_Transparency\_Sustainability}) + \beta_3(\text{Dummy\_Inaccessible}) + \beta_4(\text{Dummy\_Transparency\_No\_Sustainability} \times \text{Dummy\_Inaccessible}) + \beta_5(\text{Dummy\_Transparency\_Sustainability} \times \text{Dummy\_Inaccessible})$$

The following beta coefficients and significance levels resulted, which led to the conclusions:

- β_0 = 22.633 (CI [21.107, 24.158]) and p < 0.001 means that the average BT for "Accessible" and "No Transparency, No Sustainability" is 22.633, and the high statistical significance suggests that this coefficient is significantly different from zero, and the dependent variable BT is reliably estimated by it.
- β_1 = - 1.660 (CI [- 3.985, 0.666]), p= 0.161, standardized beta = - 0.142, means that the BT for "Accessible" is, on average, 1.660 units lower when "Transparency, No Sustainability" than when "No Transparency, No Sustainability" (not what was expected). Since the coefficient is not statistically significant, it is not possible to conclude that BT is indeed lower.
- β_2 = 0.931 (CI [- 1.360, 3.223]), p = 0.424, standardized beta = 0.079, means that the BT for "Accessible" is, on average, 0.931 units higher when "Transparency, Sustainability" than when "No Transparency, No Sustainability". Since the coefficient is not statistically significant, it is not possible to conclude that BT is indeed higher.
- β_3 = - 1.858 (CI [- 4.133, 0.417]), p = 0.109, standardized beta = - 0.170, means that the BT score is, on average, 1.858 units lower for "Inaccessible" than for "Accessible" when "No Transparency, No Sustainability". Since the coefficient is not statistically significant, it is not possible to conclude that BT is indeed lower.
- β_4 = 1.665 (CI [- 1.657, 4.987]), p = 0.324, standardized beta = 0.114, means that BT for a situation where "Transparency, No Sustainability" is, on average, 1.665 units higher for "Inaccessible" than "Accessible". Since the coefficient is not statistically significant, it is not possible to conclude that BT is indeed higher.
- β_5 = 0.131 (CI [- 3.212, 3.475]), p = 0.938, standardized beta = 0.009, means that BT for a situation where "Transparency, Sustainability" is, on average, 0.131 units higher for "Inaccessible" than "Accessible". Since the coefficient is not statistically significant, it is not possible to conclude that BT is indeed higher.

The model does not fit the data well, since the results show a non-significant F-statistic, a low R^2 and Adjusted R^2, and a high standard error of the estimate:

- F (5, 237) = 1.807, p = 0.112.
- R^2 = 0.037 (only 3.7% of the variance in BT is explained by the SCI, LL, and their interactions).
- Adjusted R^2 = 0.016 (only 1.6% of the variance in BT is explained by the SCI, LL, and their interactions when accounting for the number of predictors).
- The standard error of the estimate = 5.420.

It is possible to conclude that the independent variables SCI, LL, and their interactions do not significantly explain the variation in the dependent variable BT, thus, they are not good predictors of it. Therefore, we cannot reject H_{03b}, i.e., there is not enough evidence that the LL has a moderating effect on the relationship between SCI and BT, as expected.

The assumptions to analyze the hypotheses with parametric methods were met for all three models (Appendix C):

- Normal distribution of the data – n>30, i.e., the Central Limit Theorem (CLT) applies. This guarantees robustness for the application of parametric methods, even when one test suggests some deviation from normality.
- Normal distribution of residuals – The Q-Q plot shows that residuals closely follow the diagonal line, and the histogram of residuals reveals a shape similar to a normal distribution.
- Linearity of residuals – The scatterplot of the Residuals versus the Predicted Values presents residuals randomly scattered around zero for each category.
- Homoscedasticity of residuals – The variance of residuals across each level of the predicted variables is not exactly constant, suggesting some heteroscedasticity. However, since CLT applies and all the other analyses indicate an approximation to a normal distribution, there is no reason for concern.
- Independence of observations – The Durbin-Watson test resulted in 1.918 for model 1, 1.909 for model 2, and 1.959 for model 3 (all close to 2), meaning no autocorrelation.
- No multicollinearity – The VIF and Tolerance for each dummy variable showed no concerns.

Haye's PROCESS Macro analysis tool (Hayes, 2018) for SPSS was also used to explore the possible moderating role of LL on the relationship between SCI and BT, by analyzing PROCESS Model 1, corresponding to a simple moderation (Figure 20). X1 corresponds to the dummy variable "Dummy_Transparency_No_Sustainability" and X2 to "Dummy_Transparency_Sustainability". Table 12 presents a summary of the results of the PROCESS analysis.

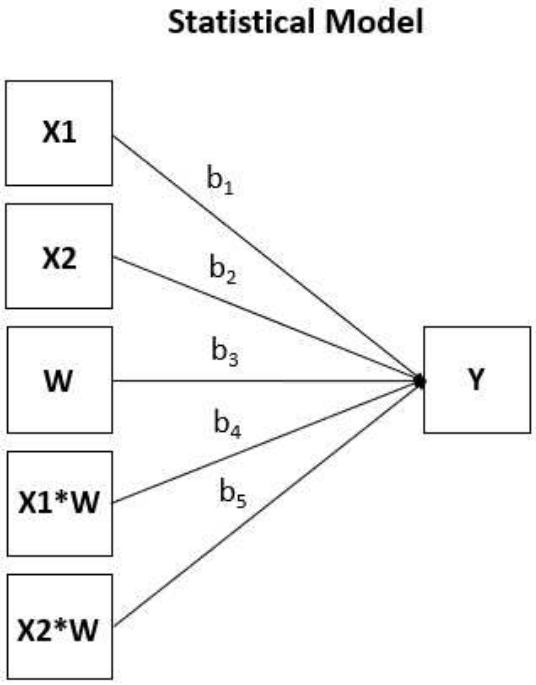


Figure 20 – Statistical model with regression coefficients

The results are the following (Appendix D):

- $R^2 = 0.0367$ means that the model explains only 3.67% of the change in BT.
- F (5,237) = 1.8067, p = 0.1122 suggests that the model is not statistically significant. Hence, the main effects of the independent variables SCI (X1, X2) and LL (W), and their interaction effects (X1*W, X2*W), do not predict BT (Y).
- No path has a statistically significant effect on BT:
    - b_1 = - 3.3248 (CI [- 8.5458, 1.8961]), p = 0.2109 indicates a lower non-significant BT for "Transparency, No Sustainability" than for "No Transparency, No Sustainability" by 3.3248 points.
    - b_2 = 0.8001 (CI [- 4.3891, 5.9892]), p = 0.7616 indicates a higher non-significant BT for "Transparency, Sustainability" than for "No Transparency, No Sustainability" by 0.8001 points.
    - b_3 = - 1.8577 (CI [- 4.1327, 0.4174]), p = 0.1090 indicates a lower non-significant BT for "Inaccessible" luxury products than for "Accessible" ones by 1.8577 points.
    - b_4 = 1.6652 (CI [- 1.6570, 4.9874]), p = 0.3244 indicates that the effect of "Transparency, No Sustainability" is stronger for "Inaccessible" luxury products

than for "Accessible" ones by 1.6652 points. However, since the result is non-significant, it suggests that there is no real difference.

- b_5 = 0.1314 (CI [- 3.2122, 3.4750]), p = 0.9384 indicates that the effect of "Transparency, Sustainability" is stronger for "Inaccessible" luxury products than for "Accessible" ones by .1314 points. However, since the result is non-significant, it suggests that there is no real difference.

Thus, there is not enough evidence to assume that the LL moderates the relationship between SCI and BT. Additionally, the non-significant result for R^2 change = 0.0367 (p = 0.5601) suggests that the interactions between SCI and LL do not contribute to predicting BT.

Table 12 – PROCESS Model 1 results summary.

Variable	Path	Coefficient	t-value	p-value
X1	b_1	-3.3248	-1.2546	.2109
X2	b_2	.8001	.3037	.7616
W	b_3	-1.8577	-1.6086	.1090
X1*W	b_4	1.6652	.9874	.3244
X2*W	b_5	.1314	.0774	.9384

Table 13 sums up the results for each hypothesis in this study.

Table 13 – Overview of hypotheses

Hypothesis	**Result**	**Conclusion**	
H1a	Not significant – H_{01a} not rejected.	The presence of transparency does not increase BT compared to the absence of it.	SCI (transparency and sustainability) does not have an impact on BT and is not a strong predictor of it.
H1b	Not significant – H_{01b} not rejected.	Adding sustainability to transparency does not increase BT compared to transparency alone.	
H1c	Not significant – H_{01c} not rejected.	Exhibiting both transparency and sustainability does not increase BT compared to showcasing neither.	
H1d	Not significant – H_{01d} not rejected.	The presence of transparency does not enhance BT compared to the absence of it.	
H1e	Not significant – H_{01e} not rejected.	Exhibiting both transparency and sustainability does not enhance BT compared to showcasing neither.	
H1f	Not significant – H_{01f} not rejected.	Adding sustainability to transparency does not enhance BT compared to transparency alone.	
H2a	Significant – H_{02a} rejected.	BT is higher for accessible luxury products compared to inaccessible ones.	LL has an impact on BT, where accessible luxury products exhibit a higher BT than inaccessible ones. However, LL is not a strong predictor of BT.
H2b	Not significant – H_{02b} not rejected.	Changing between LLs does not enhance/weaken BT.	
H3a	Not significant – H_{03a} not rejected.	BT is not different between each stimulus.	The interaction between SCI and LL does not have an impact on BT (the impact of SCI on BT does not differ between accessible luxury products and inaccessible ones) and is not a strong predictor of it.
H3b	Not significant – H_{03b} not rejected.	Changing between different stimuli does not enhance/weaken BT.	

CHAPTER 5: CONCLUSIONS AND LIMITATIONS

5.1 Main Findings & Conclusions

5.1.1 Impact of Supply Chain Information on Brand Trust

Hypotheses H1a to H1f were not supported, and these results propose that including supply chain transparency or sustainability in the description of luxury products does not significantly impact consumers' trust. Also, these two attributes are not decisive predictors of trust in a luxury brand. Thus, when it comes to forming trust around a luxury brand, consumers may think of other factors as more important.

5.1.2 Impact of Luxury Level on Brand Trust

The rejection of the null hypothesis for H2a points out a significant impact of the LL of a product on BT, where accessible luxury products have a significantly higher BT than inaccessible ones, suggesting that less exclusivity can result in more trust. However, H2b was not supported, meaning that the LL of a product does not play a critical role in predicting BT. These results suggest that, although accessible luxury products are seen as more trustworthy than inaccessible luxury ones, the impact of LL on BT might depend on other factors.

5.1.3 Moderating role of Luxury Level on the relationship between Supply Chain Information and Brand Trust

Hypotheses H3a and H3b were supported, which implied the absence of a significant interaction effect between SCI (transparency and sustainability) and LL on BT. This suggests that the influence of supply chain transparency and/or sustainability in the description of a luxury product on BT does not vary significantly between accessible luxury products and inaccessible ones. Hence, the combined effect of the SCI and LL does not produce an additional impact on BT beyond their individual contributions, i.e., the LL does not moderate the relationship between SCI and BT.

5.2 Managerial Implications

Although this study found BT to be significantly higher for accessible luxury in comparison to inaccessible luxury, the LL does not have a meaningful overall influence on BT. This means that, despite consumers valuing accessibility, they do not regulate their trust in a brand based

on it, other factors are involved. Considering how maintaining a sense of exclusivity and scarcity can be so important for a luxury brand to sustain its elevated positioning in the market, increasing accessibility can harm its image (J. N. Kapferer, 2012). This is not to say that a luxury brand can in no situation add some more accessible offerings to its portfolio. However, this should be done with extreme selectivity to avoid increasing the risk of losing the allure that comes with the feeling of rarity. Doing collaborations with brands in a lower price positioning, or even step-down line extensions (SDLE) can negatively affect BT for a luxury brand (Magnoni & Roux, 2012). Nonetheless, there is the suggestion that luxury brands can lose opportunities to tackle other profitable markets by not engaging in inclusivity, which is associated with accessibility (Patrick & Hollenbeck, 2021).

As for supply chain transparency and sustainability, since they did not impact BT and were not a strong predictor of it, luxury brand managers should reassess the importance of these two attributes. Still, engaging in supply chain transparency and sustainability can have other benefits, such as ensuring regulatory compliance and preventing scandals (Sodhi & Tang, 2019), improving CSR and stakeholder satisfaction (Tate et al., 2010), operational efficiency (Garcia-Torres et al., 2019), and decision-making optimization (Montecchi et al., 2021). Given the results, luxury brands may be better off by emphasizing supply chain transparency and sustainability within their CSR initiatives, and not considering them so much as fundamental tools for building trust in the brand. This might allow luxury brands to safeguard their luxury positioning while meeting ethical and regulatory standards at the same time. Still, in light of recent studies about younger generations of consumers like Millennials and Generation Z presenting a growing concern for supply chain transparency and sustainability (Su et al., 2019); Gazzola et al., 2017), luxury brands should remain flexible and monitor the market and consumer sentiment.

Therefore, luxury brand managers should keep their focus on the fundamental principles of luxury brands such as brand prestige (Jin et al., 2016), heritage (Rose et al., 2016), and prioritization of symbolic values (Tong et al., 2018), which are already known to enhance BT.

5.3 Academic Implications

This work presents some important academic implications, challenging current literature on the role of supply chain transparency and sustainability in building BT in the luxury sector. The findings suggest that the impact of supply chain transparency and sustainability on BT may not be strong in the luxury industry compared to other ones previously studied, such as the apparel industry and food sector (Sodhi & Tang, 2019).

The higher mean BT score for accessible luxury compared to inaccessible suggests that the first one, with characteristics further away from the idea of luxury, has the potential to increase trust in the brand. This could be traced back to the incompatibility proposed by Schwartz (1992) between the self-enhancement and self-transcendence systems since the accessible luxury product has fewer luxury attributes than the inaccessible one, which can lead to lower potential conflict. However, the non-rejection of H2b indicates that the LL cannot predict BT.

As for the influence of the interaction between supply chain transparency and sustainability on BT, the results propose that the connection between these variables may be more complex than what was originally assumed, accentuating the urge for more advanced models that can represent the intricacies of luxury BT building.

5.4 Limitations and Further Research

One thing that can be seen as a clear limitation of this work is the misrepresentation of the target population, due to almost 90% of the sample being covered by people under 35 years old, close to 50% of students. Thus, the conclusions coming from these responses may not represent the perceptions of a diverse population, since age can substantially influence views on luxury, and concepts like supply chain transparency and sustainability. Plus, having only respondents who identify as female when it comes to gender identity also limits the results to the female population, making the implications valid for women's luxury products only.

Additionally, the low sample size might have led to an underpowered study, i.e., it did not have a large enough size to detect significant differences that would otherwise be there. Unfortunately, many answers had to be discarded due to the manipulation questions failing, limiting the amount of valid data to analyze. Still, to have the minimum number of 30 responses

per stimulus (so that CLT could apply), the criteria to pass the manipulation questions about the variables LL and SCI meant excluding only “strongly agree” or “strongly disagree” when in reality more rigid standards should have been applied. The partial success of the manipulation check analysis suggests a need for further refinement of the manipulation.

The difference in BT between accessible and inaccessible luxury products creates opportunities for additional research on how distinct segments in the luxury market can generate different perceptions of consumers, and how these can in turn impact BT. Further investigation into the possible contexts in which supply chain transparency and sustainability could have a significant impact on luxury BT would be interesting, such as the interplay of other factors. In light of the absence of significant interaction effects between SCI (transparency and sustainability) and LL on BT formation, future work should explore the combination of numerous factors that can influence BT within a luxury context by using more sophisticated statistical techniques to analyze more complex models.

REFERENCE LIST

Allérès, D. (2005). Spécifictés et stratégies marketing des différents univers du luxe. In Economica (Ed.), *Revue Française du Marketing* (4th ed., Vol. 132, Issue 33). Economica.

Amatulli, C., De Angelis, M., Costabile, M., & Guido, G. (2017). *Sustainable luxury brands: Evidence from research and implications for managers* (P. Shukla & J. Singh, Eds.; 1st ed.). Springer.

Amatulli, C., De Angelis, M., & Donato, C. (2021). The atypicality of sustainable luxury products. *Psychology and Marketing*, *38*(11), 1990–2005. https://doi.org/https://doi.org/10.1002/mar.21559

Ashby, A., Leat, M., & Hudson-Smith, M. (2012). Making connections: A review of supply chain management and sustainability literature. *Supply Chain Management*, *17*(5), 497–516. https://doi.org/https://doi.org/10.1108/13598541211258573

Athwal, N., Wells, V. K., Carrigan, M., & Henninger, C. E. (2019). Sustainable luxury marketing: A synthesis and research agenda. *International Journal of Management Reviews*, *21*(4), 405–426. https://doi.org/https://doi.org/10.1111/ijmr.12195

Bai, C., & Sarkis, J. (2020). A supply chain transparency and sustainability technology appraisal model for blockchain technology. *International Journal of Production Research*, *58*(7), 2142–2162. https://doi.org/https://doi.org/10.1080/00207543.2019.1708989

Bansal, P. (2002). The corporate challenges of sustainable development. *Academy of Management Perspectives*, *16*(2), 122–131. https://doi.org/https://doi.org/10.5465/ame.2002.7173572

Barrett, E. (2023, December 8). Why Patagonia is the most reputable company in the U.S. *Fortune*. https://fortune.com/2023/12/08/patagonia-cop28-most-reputable-us-company/

Beske, P., Land, A., & Seuring, S. (2014). Sustainable supply chain management practices and dynamic capabilities in the food industry: A critical analysis of the literature. *International Journal of Production Economics*, *152*, 131–143. https://doi.org/https://doi.org/10.1016/j.ijpe.2013.12.026

Busse, C., Meinlschmidt, J., & Foerstl, K. (2017). Managing information processing needs in global supply chains: A prerequisite to sustainable supply chain management. *Journal of Supply Chain Management*, *53*(1), 87–113. https://doi.org/https://doi.org/10.1111/jscm.12129

Cadden, T., Marshall, D., & Cao, G. (2013). Opposites attract: Organisational culture and supply chain performance. *Supply Chain Management*, *18*(1), 86–103. https://doi.org/https://doi.org/10.1108/13598541311293203

Caniato, F., Caridi, M., Crippa, L., & Moretto, A. (2012). Environmental sustainability in fashion supply chains: An exploratory case based research. *International Journal of Production Economics*, *135*(2), 659–670. https://doi.org/https://doi.org/10.1016/j.ijpe.2011.06.001

Cernansky, R. (2023, February 9). Chloé launches 'instant resale' using digital IDs on Vestiaire Collective. *Vogue Business*. https://www.voguebusiness.com/sustainability/chloe-launches-instant-resale-using-digital-ids-on-vestiaire-collective

Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of Marketing*, *65*, 81–93. https://doi.org/https://doi.org/10.1509/jmkg.65.2.81.18255

Closs, D. J., Speier, C., & Meacham, N. (2011). Sustainability to support end-to-end value chains: the role of supply chain management. *Journal of the Academy of Marketing Science*, *39*(1), 101–116. https://doi.org/https://doi.org/10.1007/s11747-010-0207-4

Dalibozhko, A., & Krakovetskaya, I. (2018). Youth entrepreneurial projects for the sustainable development of global community: evidence from Enactus program. *SHS Web of Conferences*, *57*(01009). https://doi.org/https://doi.org/10.1051/shsconf/20185701009

D'Arpizio, C., Levato, F., Gault, C., de Montgolfier, J., & Jaroudi, L. (2021). *From Surging Recovery to Elegant Advance: The Evolving Future of Luxury*. https://www.bain.com/insights/from-surging-recovery-to-elegant-advance-the-evolving-future-of-luxury/

D'Arpizio, C., Levato, F., Steiner, A., & de Montgolfier, J. (2024). *Long Live Luxury: Converge to Expand through Turbulence*. https://www.bain.com/insights/long-live-luxury-converge-to-expand-through-turbulence/

De Barnier, V., Falcy, S., & Valette-Florence, P. (2012). Do consumers perceive three levels of luxury? A comparison of accessible, intermediate and inaccessible luxury brands. *Journal of Brand Management*, *19*(7), 623–636. https://doi.org/https://doi.org/10.1057/bm.2012.11

de Boissieu, E., Kondrateva, G., Baudier, P., & Ammi, C. (2021). The use of blockchain in the luxury industry: supply chains and the traceability of goods. *Journal of Enterprise Information Management*, *34*(5), 1318–1338. https://doi.org/https://doi.org/10.1108/JEIM-11-2020-0471

Delgado-Ballester, E., Jesus Yague-Guillen, M., & Luis Munuera-Aleman, J. (2003). Development and validation of a brand trust scale. *International Journal of Market Research*, *45*(1), 1–18. https://doi.org/https://doi.org/10.1177/1470785303045001

Delgado-Ballester, E., & Munuera-Alemán, J. L. (2005). Does brand trust matter to brand equity? *Journal of Product and Brand Management*, *14*(3), 187–196. https://doi.org/https://doi.org/10.1108/10610420510601058

Dubois, B. P. C. (1995). Understanding the world of international luxury brands: the "dream formula." *Journal of Advertising Research*, *35*(4), 69–77. https://go.gale.com/ps/i.do?id=GALE%7CA17430036&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=00218499&p=AONE&sw=w&userGroupName=anon%7E2cca485&aty=open-web-entry

Elkington, J. (1994). Towards the sustainable corporation: Win-win-win business strategies for sustainable development. *California Management Review*, *36*(2), 90–100. https://doi.org/https://doi.org/10.2307/41165746

Falcone, P. M., & Imbert, E. (2018). Social life cycle approach as a tool for promoting the market uptake of bio-based products from a consumer perspective. *Sustainability (Switzerland)*, *10*(4). https://doi.org/https://doi.org/10.3390/su10041031

Garcia-Torres, S., Albareda, L., Rey-Garcia, M., & Seuring, S. (2019). Traceability for sustainability – literature review and conceptual framework. *Supply Chain Management: An International Journal*, *24*(1), 85–106. https://doi.org/https://doi.org/10.1108/SCM-04-2018-0152

Gazzola, P., Colombo, G., Pezzetti, R., & Nicolescu, L. (2017). Consumer empowerment in the digital economy: Availing sustainable purchasing decisions. *Sustainability (Switzerland)*, *9*(5), 693. https://doi.org/https://doi.org/10.3390/su9050693

Greg Petro. (2021, April 30). *Gen Z Is Emerging As The Sustainability Generation*. Forbes. https://www.forbes.com/sites/gregpetro/2021/04/30/gen-z-is-emerging-as-the-sustainability-generation/

Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (D. A. Kenny & T. D. Little, Eds.; 2nd ed.). The Guilford Press.

Hess, J. (1995). Construction and assessment of a scale to measure consumer trust. *American Marketing Association*, *6*, 20–26.

Hoyle, R. H. (2000). Confirmatory factor analysis. In H. E. A. Tinsley & S. D. Brown (Eds.), *Handbook of applied multivariate statistics and mathematical modeling* (1st ed., pp. 465–497). Academic Press. https://doi.org/https://doi.org/10.1016/B978-012691360-6/50017-3

Iglewicz, B., & Hoaglin, D. C. (1993). *Volume 16: how to detect and handle outliers* (Vol. 16). Quality Press.

Jin, N. (Paul), Line, N. D., & Merkebu, J. (2016). The impact of brand prestige on trust, perceived risk, satisfaction, and loyalty in upscale restaurants. *Journal of Hospitality Marketing and Management*, *25*(5), 523–546. https://doi.org/https://doi.org/10.1080/19368623.2015.1063469

Joshi, A., Kale, S., Chandel, S., & Pal, D. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology*, *7*(4), 396–403. https://doi.org/https://doi.org/10.9734/bjast/2015/14975

Kang, J., & Hustvedt, G. (2014). Building trust between consumers and corporations: The role of consumer perceptions of transparency and social responsibility. *Journal of Business Ethics*, *125*(2), 253–265. https://doi.org/https://doi.org/10.1007/s10551-013-1916-7

Kapferer, J. N. (2012). Abundant rarity: The key to luxury growth. *Business Horizons*, *55*(5), 453–462. https://doi.org/https://doi.org/10.1016/j.bushor.2012.04.002

Kapferer, J.-N. (2010). All that glitters is not green: The challenge of sustainable luxury. *The European Business Review*, *2*(4), 40–45.

Kapferer, J.-N. (2012). Why luxury should not delocalize. *The European Business Review*, 58–62.

Kapferer, J.-N. (2015). *How luxury brands can grow yet remain rare* (1st ed.). Kogan Page.

Kapferer, J.-N., & Bastien, V. (2009). The Luxury Strategy. In *The Luxury Strategy* (1st ed., pp. 241–264). Kogan Page.

Kapferer, J.-N., Brexendorf, T. O., Kernstock, J., & Powell, S. M. (2017). *Advances in luxury brand management* (J.-N. Kapferer, T. O. Brexendorf, J. Kernstock, & S. M. Powell, Eds.; 1st ed.). Journal of Brand Management.

Kering. (2024). *Our EP&L*. https://www.kering.com/en/sustainability/measuring-our-impact/our-ep-l/

Kim, H.-Y. (2013). Statistical notes for clinical researchers: assessing normal distribution (2) using skewness and kurtosis. *Restorative Dentistry & Endodontics*, *38*(1), 52–54. https://doi.org/https://doi.org/10.5395/rde.2013.38.1.52

Kim, N. L., Kim, G., & Rothenberg, L. (2020). Is honesty the best policy? Examining the role of price and production transparency in fashion marketing. *Sustainability (Switzerland)*, *12*(17). https://doi.org/https://doi.org/10.3390/SU12176800

Kluge, P. N. (2016). Marketing luxury goods online. In *Marketing Luxury Goods Online* (pp. 23–90). PL Academic Research.

Koschate-Fischer, N., & Gartner, S. (2015). Brand trust: Scale development and validation. *Schmalenbach Business Review*, *67*, 171–195. https://doi.org/https://doi.org/10.1007/BF03396873

Kraft, T., Valdés, L., & Zheng, Y. (2018). Supply chain visibility and social responsibility: Investigating consumers' behaviors and motives. *Manufacturing & Service Operations Management*, *20*(4), 617–636. https://doi.org/https://doi.org/10.1287/msom.2017.0685

Kunz, J., May, S., & Schmidt, H. J. (2020). Sustainable luxury: current status and perspectives for future research. *Business Research*, *13*(2), 541–601. https://doi.org/https://doi.org/10.1007/s40685-020-00111-3

Lau, G. T., Lee, S. H., & Manager, M. (1999). Consumers' trust in a brand and the link to brand loyalty. *Journal of Market Focused Management*, *4*, 341–370. https://doi.org/https://doi.org/10.1023/A:1009886520142

Le, M., Hoang, T., Ho, T. P., Minh, C., Binh, N., & Phuong, T. (2020). Measuring trusts and the effects on the consumers' buying behavior. *Journal of Distribution Science*, *18*(3), 5–14. https://doi.org/https://doi.org/10.15722/jds.18.3.20203.5

Li, J., & Leonas, K. (2019). Trends of sustainable development among luxury industry. In *Sustainable luxury: Cases on circular economy and entrepreneurship* (pp. 107–126). Springer. https://doi.org/https://doi.org/10.1007/978-981-13-0623-5_6

LVMH Group. (2023). *Luxury & Sustainability*. INSIDE LVMH. https://www.insidelvmh.com/landing

MacLean, R., & MacLean, R. (2007). Closing the credibility gap: The challenges of corporate responsibility reporting. *Environmental Quality Management*, *16*(4), 1–6. https://doi.org/https://doi.org/10.1002/tqem.20137

Magnoni, F., & Roux, E. (2012). The impact of step-down line extension on consumer-brand relationships: A risky strategy for luxury brands. *Journal of Brand Management*, *19*(7), 595–608. https://doi.org/https://doi.org/10.1057/bm.2012.8

Mcwilliams, A., & Siegel, D. (2001). Corporate social responsibility: A theory of the firm perspective. *The Academy of Management Review*, *26*(1), 117–127. https://doi.org/https://doi.org/10.5465/amr.2001.4011987

Montecchi, M., Plangger, K., & West, D. C. (2021). Supply chain transparency: A bibliometric review and research agenda. *International Journal of Production Economics*, *238*. https://doi.org/https://doi.org/10.1016/j.ijpe.2021.108152

Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, *58*(3), 20–38. https://doi.org/https://doi.org/10.1177/002224299405800302

Morhart, F., Wilcox, K., & Czellar, S. (2020). Research Handbook on Luxury Branding. In F. Morhart, K. Wilcox, & S. Czellar (Eds.), *Research Handbook on Luxury Branding*. Edward Elgar Publishing Limited.

Nowak, L., Thach, L., & Olsen, J. E. (2006). Wowing the millennials: Creating brand equity in the wine industry. *Journal of Product and Brand Management*, *15*(5), 316–323. https://doi.org/https://doi.org/10.1108/10610420610685712

Patrick, V. M., & Hollenbeck, C. R. (2021). Designing for all: Consumer response to inclusive design. *Journal of Consumer Psychology*, *31*(2), 360–381. https://doi.org/https://doi.org/10.1002/jcpy.1225

Prell, M., Zanini, M. T., Caldieraro, F., & Migueles, C. (2020a). Sustainability certifications and product preference. *Marketing Intelligence and Planning*, *38*(7), 893–906. https://doi.org/https://doi.org/10.1108/MIP-12-2019-0616

Prell, M., Zanini, M. T., Caldieraro, F., & Migueles, C. (2020b). Sustainability certifications and product preference. *Marketing Intelligence and Planning*, *38*(7), 893–906. https://doi.org/https://doi.org/10.1108/MIP-12-2019-0616

Punyatoya, P. (2014). Linking environmental awareness and perceived brand eco-friendliness to brand trust and purchase intention. *Global Business Review*, *15*(2), 279–289. https://doi.org/https://doi.org/10.1177/0972150914523572

Robin, G. (2015, December 8). Luxury fashion brands are going green. But why are they keeping it a secret? *The Washington Post*. https://www.washingtonpost.com/lifestyle/style/luxury-fashion-brands-are-going-green-but-why-are-they-keeping-it-a-secret/2015/12/08/d3d93678-8c8a-11e5-acff-673ae92ddd2b_story.html

Rose, G. M., Merchant, A., Orth, U. R., & Horstmann, F. (2016). Emphasizing brand heritage: Does it work? And how? *Journal of Business Research*, *69*(2), 936–943. https://doi.org/https://doi.org/10.1016/j.jbusres.2015.06.021

Sanderson, R. (2013, June 2). Manufacturing: Consumers push big luxury names to account for supply chains. *Financial Times*. https://www.ft.com/content/f2498d08-be45-11e2-9b27-00144feab7de

Sarpong, S. (2014). Traceability and supply chain complexity: Confronting the issues and concerns. *The European Business Review*, *26*(3), 271–284. https://doi.org/https://doi.org/10.1108/EBR-09-2013-0113

Schäfer, N. (2023). Making transparency transparent: a systematic literature review to define and frame supply chain transparency in the context of sustainability. *Management Review Quarterly*, *73*(2), 579–604. https://doi.org/https://doi.org/10.1007/s11301-021-00252-7

Schnackenberg, A. K., Tomlinson, E., & Coen, C. (2021). The dimensional structure of transparency: A construct validation of transparency as disclosure, clarity, and accuracy in organizations. *Human Relations*, *74*(10), 1628–1660. https://doi.org/https://doi.org/10.1177/0018726720933317

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology*, *25*, 1–65. https://doi.org/https://doi.org/10.1016/S0065-2601(08)60281-6

Singh, J. J., Iglesias, O., & Batista-Foguet, J. M. (2012). Does having an ethical brand matter? The influence of consumer perceived ethicality on trust, affect and loyalty. *Journal of Business Ethics*, *111*, 541–549. https://doi.org/https://doi.org/10.1007/s10551-012-1216-7

Sodhi, M. M. S., & Tang, C. S. (2019). Research opportunities in supply chain transparency. *Production and Operations Management*, *28*(12), 2946–2959. https://doi.org/https://doi.org/10.1111/poms.13115

Steinhart, Y., Ayalon, O., & Puterman, H. (2013). The effect of an environmental claim on consumers' perceptions about luxury and utilitarian products. *Journal of Cleaner Production*, *53*, 277–286. https://doi.org/https://doi.org/10.1016/j.jclepro.2013.04.024

Su, C. H., Tsai, C. H., Chen, M. H., & Lv, W. Q. (2019). U.S. sustainable food market generation Z consumer segments. *Sustainability (Switzerland)*, *11*(13). https://doi.org/https://doi.org/10.3390/su11133607

Suhr, D. D. (2006). Exploratory or confirmatory factor analysis? *SAS Institute*.

Tate, W. L., Ellram, L. M., & Kirchoff, J. F. (2010). Corporate social responsibility reports: A thematic analysis related to supply chain management. *Journal of Supply Chain Management*, *46*(1), 19–44. https://doi.org/https://doi.org/10.1111/j.1745-493X.2009.03184.x

Tong, X., Su, J., & Xu, Y. (2018). Brand personality and its impact on brand trust and brand commitment: an empirical study of luxury fashion brands. *International Journal of Fashion Design, Technology and Education*, *11*(2), 196–209. https://doi.org/https://doi.org/10.1080/17543266.2017.1378732

Torelli, C. J., Monga, A. B., & Kaikati, A. M. (2012). Doing poorly by doing good: Corporate social responsibility and brand concepts. *Journal of Consumer Research*, *38*(5), 948–963. https://doi.org/https://doi.org/10.1086/660851

Tynan, C., McKechnie, S., & Chhuon, C. (2010). Co-creating value for luxury brands. *Journal of Business Research*, *63*(11), 1156–1163. https://doi.org/https://doi.org/10.1016/j.jbusres.2009.10.012

Vigneron, F., & Johnson, L. W. (1999). A review and a conceptual framework of prestige-seeking consumer behavior. *Academy of Marketing Science Review*, *1*(1), 1–15. http://www.amsreview.org

World Commission on Environment and Development. (1987). Our common future. In *Pearson's*. Oxford University Press.

APPENDICES

Appendix A: Pilot Study

Block 1: Introduction

Hello 😊

Thank you for participating in this **short survey**, which is part of the early research stage of my Master's thesis at Católica Lisbon SBE 🌞

Your participation is very important to help me refine my research methodology for the main study, which means that I will need your help again to participate in the next survey for my main study 🙏

Please answer the questions honestly, there are no correct or incorrect answers. The survey should take approximately **5 minutes** to complete. All responses are **anonymous** and will only be used for research purposes. Participation in this study is voluntary.

If you have any questions or concerns regarding this study, feel free to contact me: s-bjramalho@ucp.pt 📧

Thanks a lot for your support 🤜🤛

Block 2: Female?

Q1: With which **gender** do you identify yourself?

- ○ Female
- ○ Male
- ○ Non-Binary
- ○ Other
- ○ Prefer not to answer

Block 3: Brand?

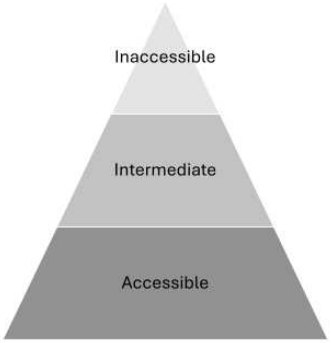
Q1: To what extent are you **familiar** with the following **luxury brands** (1 = strongly unfamiliar to 7 = strongly familiar)?

	1 = strongly unfamiliar	2 = unfamiliar	3 = slightly unfamiliar	4 = neutral	5 = slightly familiar	6 = familiar	7 = strongly familiar
Balenciaga	○	○	○	○	○	○	○
Chanel	○	○	○	○	○	○	○
Dior	○	○	○	○	○	○	○
Dolce&Gabbana	○	○	○	○	○	○	○
Elie Saab	○	○	○	○	○	○	○
Fendi	○	○	○	○	○	○	○
Givenchy	○	○	○	○	○	○	○
Jean Paul Gaultier	○	○	○	○	○	○	○
Maison Margiela	○	○	○	○	○	○	○
Schiaparelli	○	○	○	○	○	○	○
Valentino	○	○	○	○	○	○	○
Versace	○	○	○	○	○	○	○
Viktor & Rolf	○	○	○	○	○	○	○

Block 4: Manipulation Questions – Levels Explanation

Q1: Imagine a **pyramid with 3 levels**: Accessible, Intermediate, and Inaccessible, where Accessible is the base and Inaccessible is the top.

- **Inaccessible luxury** products have extremely high prices and superior quality, inaccessible to most people.
- **Intermediate luxury** products are in the middle of accessible and inaccessible in terms of price and quality.
- **Accessible luxury** products are still affordable and accessible to many people.



Block 5: Manipulation Questions - Inaccessible (couture piece)

Q1: Please consider the following luxury products (**couture piece**).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
This product (couture piece) is inaccessible luxury.	○	○	○	○	○	○	○
This product (couture piece) is intermediate luxury.	○	○	○	○	○	○	○
This product (couture piece) is accessible luxury.	○	○	○	○	○	○	○

Block 6: Manipulation Questions - Inaccessible (high-end jewelry piece)

Q1: Please consider the following luxury products (**high-end jewelry piece**).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
This product (high-end jewelry piece) is inaccessible luxury.	○	○	○	○	○	○	○
This product (high-end jewelry piece) is intermediate luxury.	○	○	○	○	○	○	○
This product (high-end jewelry piece) is accessible luxury.	○	○	○	○	○	○	○

Block 7: Manipulation Questions - Intermediate (ready-to-wear clothing)

Q1: Please consider the following luxury products (**ready-to-wear clothing**).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
This product (ready-to-wear clothing) is inaccessible luxury.	○	○	○	○	○	○	○
This product (ready-to-wear clothing) is intermediate luxury.	○	○	○	○	○	○	○
This product (ready-to-wear clothing) is accessible luxury.	○	○	○	○	○	○	○

Block 8: Manipulation Questions - Intermediate (handbag)

Q1: Please consider the following luxury products (**handbag**).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
This product (handbag) is inaccessible luxury.	○	○	○	○	○	○	○
This product (handbag) is intermediate luxury.	○	○	○	○	○	○	○
This product (handbag) is accessible luxury.	○	○	○	○	○	○	○

Block 9: Manipulation Questions - Intermediate (watch)

Q1: Please consider the following luxury products (**watch**).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
This product (watch) is inaccessible luxury.	○	○	○	○	○	○	○
This product (watch) is intermediate luxury.	○	○	○	○	○	○	○
This product (watch) is accessible luxury.	○	○	○	○	○	○	○

Block 10: Attention Test

Q1: This is an attention question. Please select "3 = slightly disagree".

- ○ 1 = strongly disagree
- ○ 2 = disagree
- ○ 3 = slightly disagree
- ○ 4 = neutral
- ○ 5 = slightly agree
- ○ 6 = agree
- ○ 7 = strongly agree

Block 11: Manipulation Questions - Accessible (perfume)

Q1: Please consider the following luxury products (**perfume**).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
This product (perfume) is inaccessible luxury.	○	○	○	○	○	○	○
This product (perfume) is intermediate luxury.	○	○	○	○	○	○	○
This product (perfume) is accessible luxury.	○	○	○	○	○	○	○

Block 12: Manipulation Questions - Accessible (eyewear)

Q1: Please consider the following luxury products (**eyewear**).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
This product (eyewear) is inaccessible luxury.	○	○	○	○	○	○	○
This product (eyewear) is intermediate luxury.	○	○	○	○	○	○	○
This product (eyewear) is accessible luxury.	○	○	○	○	○	○	○

Block 13: Demographics

Q1: To finalize, just some quick demographic questions 😊

How old are you?

- ○ Under 18
- ○ 18-24 years old
- ○ 25-34 years old
- ○ 35-44 years old
- ○ 45-54 years old
- ○ 55-64 years old
- ○ 65+ years old

Q2: Which of the following categories best describes your employment status?

- ○ Employed Full-Time
- ○ Employed Part-Time
- ○ Student
- ○ Retired
- ○ Unemployed
- ○ Other

Q3: What is your household income on average per year?

- ○ Less than €10,000
- ○ €10,000 - €24,999
- ○ €25,000 - €49,999
- ○ €50,000 - €74,999
- ○ €75,000 - €99,999
- ○ €100,000 - €124,999
- ○ €125,000 - €149,999
- ○ €150,000 or more
- ○ Prefer not to answer.

Appendix B: Final Survey

Block 1: Introduction

Hello 😊

Thank you for participating in this **short survey**, which is part of my Master's thesis at Católica Lisbon SBE 🌞

The study aims to evaluate consumers' **trust in brands** according to the level of **supply chain transparency and sustainability** of its products.

Your participation is very important 🙏 Please answer the questions honestly, there are no correct or incorrect answers. The survey should take approximately **5 minutes** to complete. All responses are **anonymous** and will only be used for research purposes. Participation in this study is voluntary.

If you have any questions or concerns regarding this study, feel free to contact me: s-bjramalho@ucp.pt 📧

By continuing you agree to participate. Thanks a lot for your support, and if you could also pass this survey along I would be very grateful 🙌

Block 2: Female?

Q1: With which **gender** do you identify yourself?

- ○ Female
- ○ Male
- ○ Non-Binary
- ○ Other
- ○ Prefer not to answer.

Block 3: Screening Test

Q1: Have you heard of the brand **Dior**?

- ○ Yes
- ○ No

Q2: How do you feel about the brand **Dior**?

- ○ 1 = strongly dislike
- ○ 2 = dislike
- ○ 3 = slightly dislike
- ○ 4 = neutral
- ○ 5 = slightly like
- ○ 6 = like
- ○ 7 = strongly like

Block 4: Supply Chain Transparency?

Q1: To what extent are you **familiar** with the concept of **supply chain transparency** (1 = strongly unfamiliar to 7 = strongly familiar)?

- ○ 1 = strongly unfamiliar
- ○ 2 = unfamiliar
- ○ 3 = slightly unfamiliar
- ○ 4 = neutral
- ○ 5 = slightly familiar
- ○ 6 = familiar
- ○ 7 = strongly familiar

Block 5: Supply Chain Sustainability?

Q1: To what extent are you **familiar** with the concept of **supply chain <u>sustainability</u>** (1 = strongly unfamiliar to 7 = strongly familiar)?

- ○ 1 = strongly unfamiliar
- ○ 2 = unfamiliar
- ○ 3 = slightly unfamiliar
- ○ 4 = neutral
- ○ 5 = slightly familiar
- ○ 6 = familiar
- ○ 7 = strongly familiar

Block 6: Attention Test

Q1: This is an attention question. Please select "3 = slightly disagree".

- ○ 1 = strongly disagree
- ○ 2 = disagree
- ○ 3 = slightly disagree
- ○ 4 = neutral
- ○ 5 = slightly agree
- ○ 6 = agree
- ○ 7 = strongly agree

Block 7: Stimulus 1 – Accessible, without Transparency and without Sustainability

Q1: Please consider the following luxury product from Dior (**perfume**).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
This product (perfume) is inaccessible luxury.	○	○	○	○	○	○	○
This product (perfume) is intermediate luxury.	○	○	○	○	○	○	○
This product (perfume) is accessible luxury.	○	○	○	○	○	○	○

Q2: You will now be presented with **1 scenario**, where you will have an image of a product from the brand Dior and a text with some information about that product.

You will be asked questions about it. Please try to concentrate and be honest about **how you feel about the brand in this situation**.

Miss Dior Parfum
Parfum - Intense Floral, Fruity and Woody Notes

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
The information on the product doesn't showcase any supply chain transparency or sustainability.	○	○	○	○	○	○	○
The information on the product showcases supply chain transparency but no sustainability.	○	○	○	○	○	○	○
The information on the product showcases both supply chain transparency and sustainability.	○	○	○	○	○	○	○

Q3: To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
I am confident in Dior's ability to perform well.	○	○	○	○	○	○	○
I trust Dior.	○	○	○	○	○	○	○
I rely on Dior.	○	○	○	○	○	○	○
Dior is safe.	○	○	○	○	○	○	○
Dior delivers what it promises.	○	○	○	○	○	○	○

Block 8: Stimulus 2 – Inaccessible, without Transparency and without Sustainability

Q1: Please consider the following luxury product from Dior (**high-end jewelry piece**).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
This product (high-end jewelry piece) is inaccessible luxury.	○	○	○	○	○	○	○
This product (high-end jewelry piece) is intermediate luxury.	○	○	○	○	○	○	○
This product (high-end jewelry piece) is accessible luxury.	○	○	○	○	○	○	○

Q2: You will now be presented with **1 scenario**, where you will have an image of a product from the brand Dior and a text with some information about that product.

You will be asked questions about it. Please try to concentrate and be honest about **how you feel about the brand in this situation**.

Dior High Jewelry Necklace
Les Jardins de la Couture High Jewelry Collection
Materials: yellow gold, diamonds, Paraiba type tourmalines, tsavorite and white pearls.

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
The information on the product doesn't showcase any supply chain transparency or sustainability.	○	○	○	○	○	○	○
The information on the product showcases supply chain transparency but no sustainability.	○	○	○	○	○	○	○
The information on the product showcases both supply chain transparency and sustainability.	○	○	○	○	○	○	○

Q3: To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
I am confident in Dior's ability to perform well.	○	○	○	○	○	○	○
I trust Dior.	○	○	○	○	○	○	○
I rely on Dior.	○	○	○	○	○	○	○
Dior is safe.	○	○	○	○	○	○	○
Dior delivers what it promises.	○	○	○	○	○	○	○

Block 9: Stimulus 3 – Accessible, with Transparency and without Sustainability

Q1: Please consider the following luxury product from Dior (**perfume**).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
This product (perfume) is inaccessible luxury.	○	○	○	○	○	○	○
This product (perfume) is intermediate luxury.	○	○	○	○	○	○	○
This product (perfume) is accessible luxury.	○	○	○	○	○	○	○

Q2: You will now be presented with **1 scenario**, where you will have an image of a product from the brand Dior and a text with some information about that product.

You will be asked questions about it. Please try to concentrate and be honest about **how you feel about the brand in this situation**.

Miss Dior Parfum
Parfum - Intense Floral, Fruity and Woody Notes

1. Sourcing and Treatment of Materials & Ingredients:

Materials: Flask: glass (France - "Verre de France" factory)

Lid: plastic (France - "Plastique Création" factory)

Ingredients

Flowers: sourced in Grasse, France ("Fleurs de Grasse" factory)

Woods: sourced in Indonesia ("IndoWood" factory)

2. Perfume creation at Dior factory in Saint Jean de Braye, France
Perfume created by François Demachy.

3. Packaging
Cardboard manufactured at Dior factory in Saint Jean de Braye, France.

4. Distribution
G4S International Logistics ensures secure transportation, storing, and handling.

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
The information on the product doesn't showcase any supply chain transparency or sustainability.	○	○	○	○	○	○	○
The information on the product showcases supply chain transparency but no sustainability.	○	○	○	○	○	○	○
The information on the product showcases both supply chain transparency and sustainability.	○	○	○	○	○	○	○

Q3: To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
I am confident in Dior's ability to perform well.	○	○	○	○	○	○	○
I trust Dior.	○	○	○	○	○	○	○
I rely on Dior.	○	○	○	○	○	○	○
Dior is safe.	○	○	○	○	○	○	○
Dior delivers what it promises.	○	○	○	○	○	○	○

Block 10: Stimulus 4 – Inaccessible, with Transparency and without Sustainability

Q1: Please consider the following luxury product from Dior (**high-end jewelry piece**).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
This product (high-end jewelry piece) is inaccessible luxury.	○	○	○	○	○	○	○
This product (high-end jewelry piece) is intermediate luxury.	○	○	○	○	○	○	○
This product (high-end jewelry piece) is accessible luxury.	○	○	○	○	○	○	○

Q2: You will now be presented with **1 scenario**, where you will have an image of a product from the brand Dior and a text with some information about that product.

You will be asked questions about it. Please try to concentrate and be honest about **how you feel about the brand in this situation**.

1. Sourcing and Treatment of Materials:

18 carats (75% pure) yellow gold (Turkey - "Mira Gold" factory),

1.25 carats diamonds (Canada - "CanaDiamond" factory),

2.50 carats paraiba type tourmalines (Brazil - "Brilho do Brazil" factory),

3 carats tsavorite (Tanzania - "Savanna Gemstones" factory),

White pearls (Australia - "Pacific Pearl" factory).

2. Design and Craftsmanship at Christian Dior Atelier in Paris, France
Skilled artisans ensure the highest quality craftsmanship.

3. Packaging

Case made of ebony wood (Sri Lanka, India - "Wood Affair" factory) and silk velvet (Lake Como, Italy - "Silk Desire" factory).

4. Distribution
G4S International Logistics ensures secure transportation, storing, and handling.

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
The information on the product doesn't showcase any supply chain transparency or sustainability.	○	○	○	○	○	○	○
The information on the product showcases supply chain transparency but no sustainability.	○	○	○	○	○	○	○
The information on the product showcases both supply chain transparency and sustainability.	○	○	○	○	○	○	○

Q3: To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
I am confident in Dior's ability to perform well.	○	○	○	○	○	○	○
I trust Dior.	○	○	○	○	○	○	○
I rely on Dior.	○	○	○	○	○	○	○
Dior is safe.	○	○	○	○	○	○	○
Dior delivers what it promises.	○	○	○	○	○	○	○

Block 11: Stimulus 5 – Accessible, with Transparency and with Sustainability

Q1: Please consider the following luxury product from Dior (**perfume**).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
This product (perfume) is inaccessible luxury.	○	○	○	○	○	○	○
This product (perfume) is intermediate luxury.	○	○	○	○	○	○	○
This product (perfume) is accessible luxury.	○	○	○	○	○	○	○

Q2: You will now be presented with **1 scenario**, where you will have an image of a product from the brand Dior and a text with some information about that product.

You will be asked questions about it. Please try to concentrate and be honest about **how you feel about the brand in this situation**.

Miss Dior Parfum
Parfum - Intense Floral, Fruity and Woody Notes

1. Sourcing and Treatment of Materials & Ingredients:

Materials: Flask: recycled glass (France - "Verre de France" factory)

Lid: recycled plastic (France - "Plastique Création" factory)

Ingredients

Flowers: sourced in Grasse, France ("Fleurs de Grasse" factory)

Woods: sourced in Indonesia ("IndoWood" factory)

2. Perfume creation at Dior factory in Saint Jean de Braye, France
Perfume created by François Demachy.

3. Packaging
Recycled cardboard manufactured at Dior factory in Saint Jean de Braye, France.

4. Distribution
G4S International Logistics ensures secure transportation, storing, and handling.

Environmental & Social Certifications:
- Certified B Corporation (high social and environmental performance, legal commitment to accountability to all stakeholders),
- Fair Labor Accreditation (humane working conditions for workers, prohibition of child labor),
- Rainforest Alliance Certified (farming - protection of forests, climate, human rights, livelihoods),
- Leaping Bunny (cruelty-free: no animal testing).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
The information on the product doesn't showcase any supply chain transparency or sustainability.	○	○	○	○	○	○	○
The information on the product showcases supply chain transparency but no sustainability.	○	○	○	○	○	○	○
The information on the product showcases both supply chain transparency and sustainability.	○	○	○	○	○	○	○

Q3: To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
I am confident in Dior's ability to perform well.	○	○	○	○	○	○	○
I trust Dior.	○	○	○	○	○	○	○
I rely on Dior.	○	○	○	○	○	○	○
Dior is safe.	○	○	○	○	○	○	○
Dior delivers what it promises.	○	○	○	○	○	○	○

Block 12: Stimulus 6 – Inaccessible, with Transparency and with Sustainability

Q1: Please consider the following luxury product from Dior (**high-end jewelry piece**).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
This product (high-end jewelry piece) is inaccessible luxury.	○	○	○	○	○	○	○
This product (high-end jewelry piece) is intermediate luxury.	○	○	○	○	○	○	○
This product (high-end jewelry piece) is accessible luxury.	○	○	○	○	○	○	○

Q2: You will now be presented with **1 scenario**, where you will have an image of a product from the brand Dior and a text with some information about that product.

You will be asked questions about it. Please try to concentrate and be honest about **how you feel about the brand in this situation**.

1. Sourcing and Treatment of Materials:

18 carats (75% pure) recycled yellow gold (Turkey - "Mira Gold" factory),

1.25 carats diamonds (Canada - "CanaDiamond" factory),

2.50 carats paraiba type tourmalines (Brazil - "Brilho do Brazil" factory),

3 carats tsavorite (Tanzania - "Savanna Gemstones" factory),

White pearls (Australia - "Pacific Pearl" factory).

2. Design and Craftsmanship at Christian Dior Atelier in Paris, France
Skilled artisans ensure the highest quality craftsmanship.

3. Packaging

Case made of ebony wood (Sri Lanka, India - "Wood Affair" factory) and silk velvet (Lake Como, Italy - "Silk Desire" factory - organic and cruelty-free).

4. Distribution
G4S International Logistics ensures secure transportation, storing, and handling.

Environmental & Social Certifications:
- Certified B Corporation (high social and environmental performance, legal commitment to accountability to all stakeholders),
- Fair Labor Accreditation (humane working conditions for workers, prohibition of child labor),
- Responsible Jewelry Council (RJC) (trust, transparency, and sustainability across the entire jewelry and watch supply chain, ultimately benefiting consumers, communities, and the environment),
- Alliance for Responsible Mining (ARM) (to transform the sector into a socially and environmentally responsible activity, while improving the quality of life of artisanal miners, their families and communities).

To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
The information on the product doesn't showcase any supply chain transparency or sustainability.	○	○	○	○	○	○	○
The information on the product showcases supply chain transparency but no sustainability.	○	○	○	○	○	○	○
The information on the product showcases both supply chain transparency and sustainability.	○	○	○	○	○	○	○

Q3: To what extent do you agree with the following statements (1 = strongly disagree to 7 = strongly agree)?

	1 = strongly disagree	2 = disagree	3 = slightly disagree	4 = neutral	5 = slightly agree	6 = agree	7 = strongly agree
I am confident in Dior's ability to perform well.	○	○	○	○	○	○	○
I trust Dior.	○	○	○	○	○	○	○
I rely on Dior.	○	○	○	○	○	○	○
Dior is safe.	○	○	○	○	○	○	○
Dior delivers what it promises.	○	○	○	○	○	○	○

Block 13: Demographics

Q1: To finalize, just some quick demographic questions 😊

How old are you?

- ○ Under 18
- ○ 18-24 years old
- ○ 25-34 years old
- ○ 35-44 years old
- ○ 45-54 years old
- ○ 55-64 years old
- ○ 65+ years old

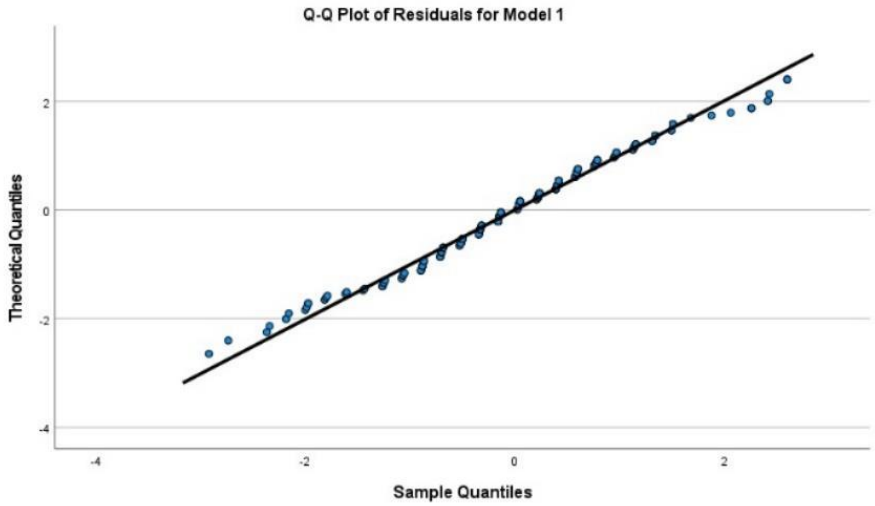
Q2: Which of the following categories best describes your employment status?

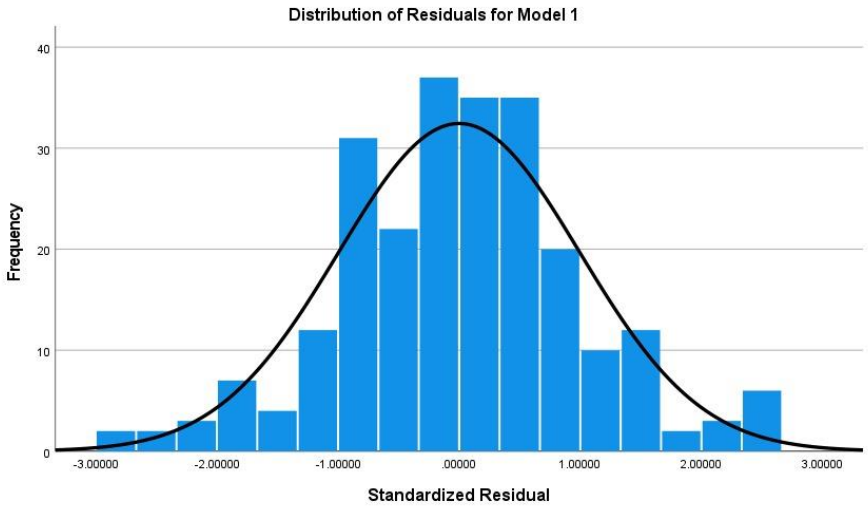
- ○ Employed Full-Time
- ○ Employed Part-Time
- ○ Student
- ○ Retired
- ○ Unemployed
- ○ Other

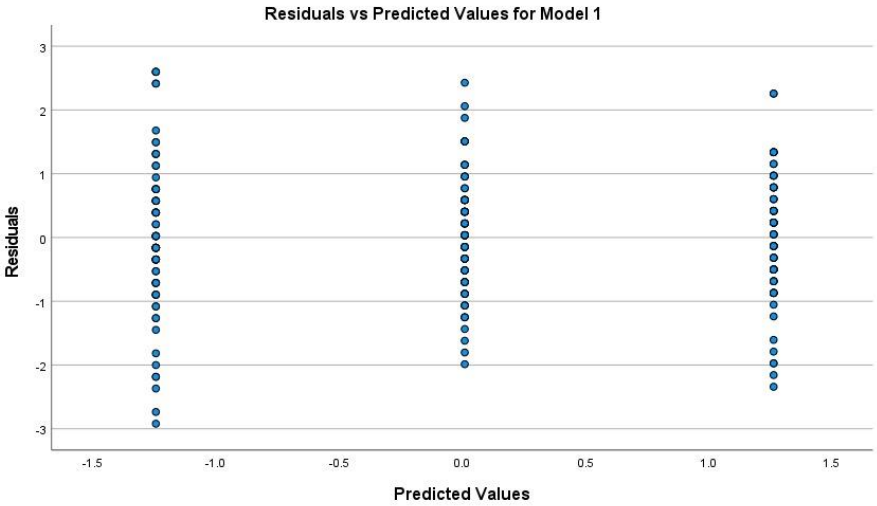
Q3: What is your individual monthly gross income?

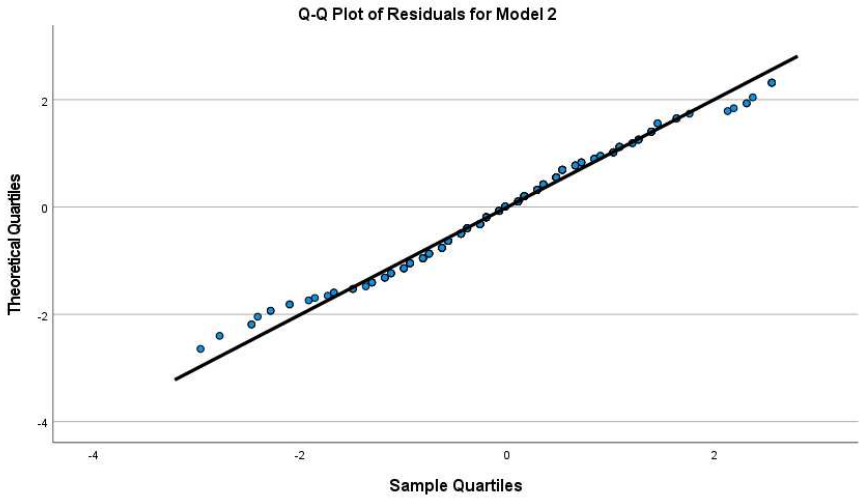
- ○ Less than €1,000
- ○ €1,001 - €2,000
- ○ €2,001 - €3,000
- ○ €3,001 - €4.000
- ○ €4,001 - €5,000
- ○ Above €5,000
- ○ Prefer not to answer.

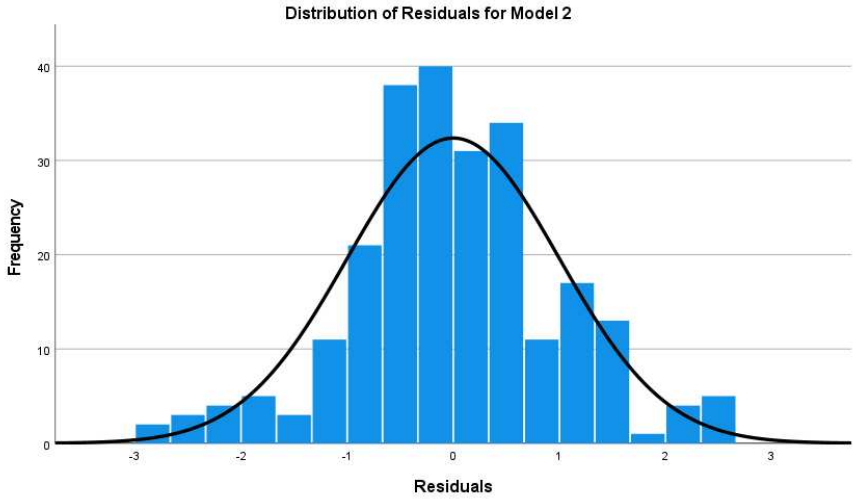
Appendix C: Analysis of normality of linear regression models

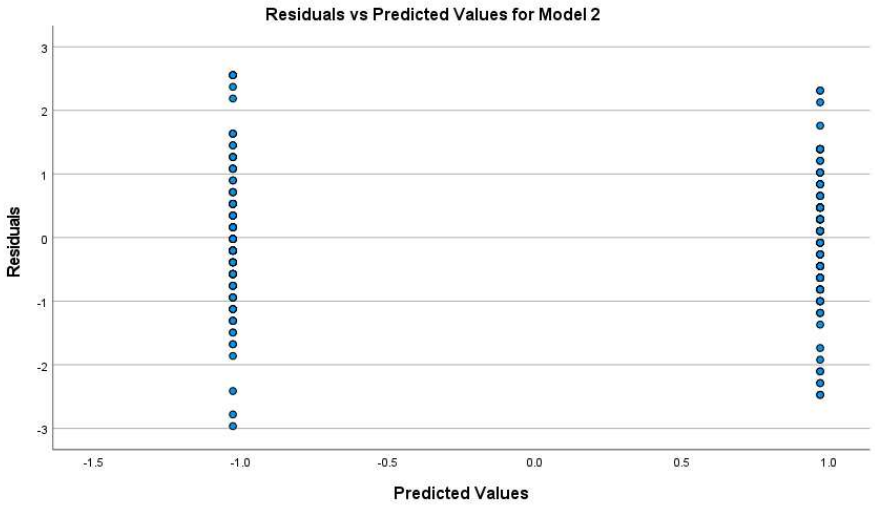


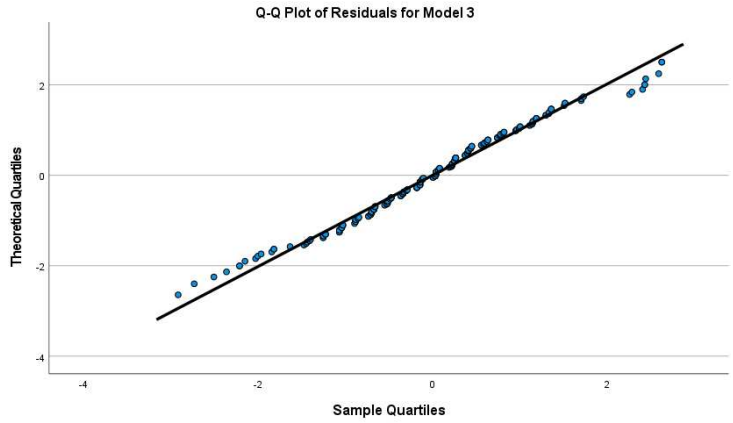


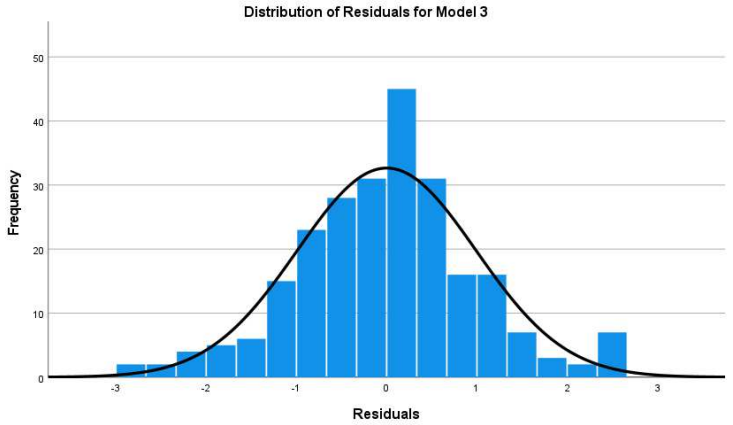


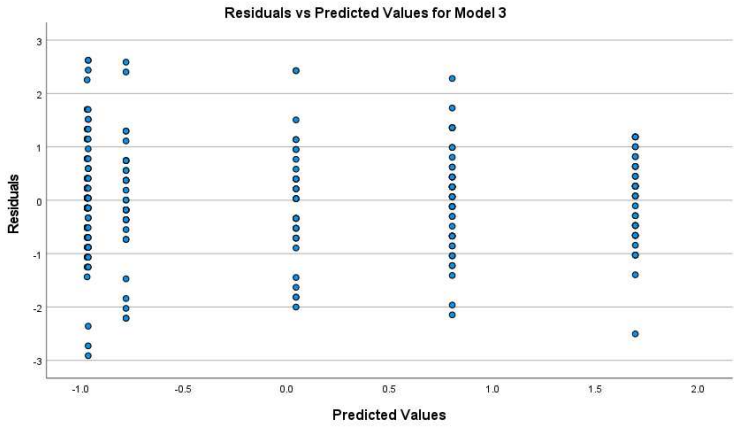

Q-Q Plot of Residuals for Model 2
Theoretical Quantiles
Sample Quantiles
2
0
-2
-4
-4
-2
0
2


Distribution of Residuals for Model 2
Frequency
Residuals
40
30
20
10
0
-3
-2
-1
0
1
2
3


Residuals vs Predicted Values for Model 2
Residuals
Predicted Values
3
2
1
0
-1
-2
-3
-1.5
-1.0
-0.5
0.0
0.5
1.0







VIF and Tolerance for each dummy variable

Dummy Variable	VIF	Tolerance
Dummy_Transparency_No_Sustainability	2.512	0.398
Dummy_Transparency_Sustainability	2.405	.416
Dummy_Inaccessible	2.756	.363
Interaction_Transparency_No_Sustainability_Inaccessible	3.300	.303
Interaction_Transparency_Sustainability_Inaccessible	3.076	.325

Appendix D - Matrix PROCESS Model 1 Result

```
Run MATRIX procedure:

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

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

**************************************************************************
Model  : 1
    Y  : BT
    X  : SCInum
    W  : LLnum

Sample
Size:  243

Coding of categorical X variable for analysis:
 SCInum     X1     X2
  1.000   .000   .000
  2.000  1.000   .000
  3.000   .000  1.000

**************************************************************************
OUTCOME VARIABLE:
 BT

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .1916      .0367    29.3712     1.8067     5.0000   237.0000      .1122

Model
              coeff         se          t          p       LLCI       ULCI
constant    24.4903     1.7697    13.8385      .0000    21.0039    27.9767
X1          -3.3248     2.6502    -1.2546      .2109    -8.5458     1.8961
X2            .8001     2.6340      .3037      .7616    -4.3891     5.9892
LLnum       -1.8577     1.1549    -1.6086      .1090    -4.1327      .4174
Int_1        1.6652     1.6864      .9874      .3244    -1.6570     4.9874
Int_2         .1314     1.6972      .0774      .9384    -3.2122     3.4750

Product terms key:
 Int_1    :        X1       x        LLnum
 Int_2    :        X2       x        LLnum

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      .0047      .5810     2.0000   237.0000      .5601

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

Level of confidence for all confidence intervals in output:
  95.0000

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