

# Sustainable Luxury Fashion – Determining consumer´s willingness to pay for product sustainability

Philipp Hennig

Dissertation written under the supervision of  
Prof. Dr. Paul Lapoule

Dissertation submitted in partial fulfilment of requirements for the  
Int. M.Sc. in Management – Strategy & Consulting, at Universidade  
Católica Portuguesa and for the M.Sc. in Management at ESCP  
Business School, 12.05.2023.

## Abstract:

This master thesis with the title “Sustainable Luxury Fashion – Determining consumer’s willingness to pay for product sustainability” by the author Philipp Hennig, explores the significance of sustainability as a product attribute of luxury-fashion products. To quantify the importance, the willingness to pay was calculated among 111 self-selected global luxury consumers using a choice-based conjoint analysis. Based on academic literature, the study categorizes luxury consumers into Social, Individual, Functional, Financial, and Sustainable segments. This research further investigated the moderating effect of age to examine if younger luxury consumers have a higher willingness to pay for sustainability.

Among all studied consumer segments, quality was the most important product attribute, followed by sustainability. Generation Y&Z consumers, apart from social luxury consumers, did not have a higher willingness to pay for sustainability as a product attribute.

This research indicates that sustainability has a positive effect on luxury consumer's willingness to pay for luxury fashion. With an average willingness to pay of €462.94, luxury fashion consumers are willing to pay more for a higher level of sustainability.

Based on the insights gained, this research recommends incorporating sustainability as a core motivation for luxury purchases into existing frameworks. For companies, this research provides evidence that sustainability is important not only for creating a favorable image and complying with regulations but also because luxury consumers value product sustainability.

**Keywords:** Choice-based Conjoint Analysis, Willingness to pay, Relative Attribute Importance, Luxury Fashion Industry, Sustainability, CSR

## Resumo:

Esta tese de mestrado, intitulada "Sustainable Luxury Fashion - Determining consumer's willingness to pay for product sustainability", do autor Philipp Hennig, explora a importância da sustentabilidade como atributo de produtos de moda de luxo. Para quantificar a importância, a disponibilidade para pagar foi calculada entre 111 consumidores de luxo globais auto-selecionados, utilizando uma análise conjunta baseada na escolha. Com base na literatura académica, o estudo categoriza os consumidores nos segmentos Social, Individual, Funcional, Financeiro e Sustentável. Esta pesquisa investigou ainda o efeito moderador da idade para examinar se os jovens consumidores têm uma maior disponibilidade para pagar pela sustentabilidade.

Entre todos os segmentos de consumidores estudados, a qualidade foi o atributo de produto mais importante, seguido pela sustentabilidade. Os consumidores da Geração Y&Z, com exceção dos consumidores de luxo social, não apresentaram maior disposição a pagar pela sustentabilidade como atributo do produto.

Esta investigação indica que a sustentabilidade tem um efeito positivo na disponibilidade do consumidor de luxo para pagar pela moda de luxo. Com uma disponibilidade média para pagar de 462,94€, os consumidores de moda de luxo estão dispostos a pagar mais por um nível mais elevado de sustentabilidade.

Com base nos conhecimentos adquiridos, esta investigação recomenda a incorporação da sustentabilidade como uma motivação central para as compras de luxo nos quadros existentes. Para as empresas, esta investigação fornece provas de que a sustentabilidade é importante não só para criar uma imagem favorável e cumprir os regulamentos, mas também porque os consumidores de luxo valorizam a sustentabilidade dos produtos.

**Palavras-chave:** Análise Conjunta Baseada na Escolha, Disposição para Pagar, Importância Relativa dos Atributos, Indústria da Moda de Luxo, Sustentabilidade, Responsabilidade Social Empresarial.

## Acknowledgment:

First and foremost, I want to express my gratitude to my thesis advisor, Prof. Dr. Paul Lapoule, for his guidance, support, and continuous feedback, which have been instrumental to the success of my thesis. I appreciate the time and effort he has devoted to helping me throughout this process.

Additionally, I want to thank both ESCP Business School and Católica Lisbon School of Business & Economics for providing me with an excellent academic environment to pursue my Double Degree Master studies. The resources and support offered by these universities have contributed significantly to my personal and academic growth.

I am also grateful to the participants who generously contributed their time and effort to participate in my study. Their willingness to participate and share their experiences has provided invaluable data and insights that have greatly contributed to the success of this thesis. I would like to also acknowledge the contributions of my friends who have supported and encouraged me throughout my whole Master studies.

Finally, I would like to express my heartfelt appreciation to my family for their unwavering support and encouragement throughout my academic pursuits. Their love and support have been my source of strength and motivation, and I would not have been able to achieve this milestone without them.

In conclusion, I would like to thank everyone who has contributed in one way or another to the successful completion of this thesis and my studies overall. Their contributions have been invaluable, and I am truly grateful for their support and encouragement.

# Table of Contents

- Abstract:..... 2**
- Acknowledgment:..... 4**
- 1. Introduction ..... 7**
- 2. Literature Review..... 9**
  - 2.1 Sustainability:.....9**
    - 2.1.1 Definition of Sustainability.....9
    - 2.1.2 Corporate Social Responsibility .....10
    - 2.1.3 Sustainability in the Fashion Industry .....15
  - 2.2 Luxury: .....17**
    - 2.2.1 Luxury Concept: .....17
    - 2.2.2 Economic Growth in the Luxury Industry: .....19
    - 2.2.3 Luxury Consumers:.....20
    - 2.2.4 Luxury Purchase Criteria: .....21
  - 2.3 Luxury and Sustainability:.....24**
  - 2.4 Willingness to pay: .....26**
  - 2.5 Literature Limitations: .....28**
- 3. Theoretical Framework: .....29**
- 4. Methodology: .....33**
  - 4.1 Conjoint Analysis Attributes: .....34**
    - 4.1.1 Brand Prestige.....34
    - 4.1.2 Quality.....34
    - 4.1.3 Feeling of Accomplishment.....35
    - 4.1.4 Sustainability.....35
    - 4.1.5 Price .....35
  - 4.2 Online Survey Structure:.....36**
  - 4.3 Data Collection: .....37**
  - 4.4 Data Analysis:.....38**
    - 4.4.1 Gender .....38
    - 4.4.2 Age .....39
    - 4.4.3 Marital Status.....39
    - 4.4.4 Education Level.....40
    - 4.4.5 Employment Status.....40
    - 4.4.6 Monthly Disposable Income .....40
    - 4.4.7 Purchase Motivation.....40
- 5. Results .....42**
  - 5.1 Relative Attribute Importance .....44**
  - 5.2 Willingness to pay .....47**
- 6. Theoretical Discussion .....57**
  - Hypothesis 1 – Social Luxury Consumer .....58**
  - Hypothesis 2 – Individual Luxury Consumer.....58**
  - Hypothesis 3 – Functional Luxury Consumer.....59**

|   |           |
|---|-----------|
| Hypothesis 4 – Financial Luxury Consumer .....  | 59        |
| Hypothesis 5 – Relative Attribute Importance of Sustainability .....                  | 60        |
| Hypothesis 6 – Luxury Consumers of Generation Y & Z .....                             | 60        |
| <b>7. Conclusion</b> .....  | <b>62</b> |
| 7.1 Theoretical Contribution.....   | 63        |
| 7.2 Managerial Implications .....   | 63        |
| 7.3 Limitations & Future Research .....   | 64        |
| <b>Appendix 1: Minimal Luxury Fashion Item Price Calculation .....</b>                | <b>66</b> |
| <b>Appendix 2: Maximum Luxury Fashion Item Price Calculation .....</b>                | <b>67</b> |
| <b>Appendix 3: Conjoint Analysis Survey Design – Filter Question .....</b>            | <b>68</b> |
| <b>Appendix 4: Conjoint Analysis Survey Design – Segmentation Question .....</b>      | <b>69</b> |
| <b>Appendix 5: Conjoint Analysis Survey Design – Attribute Package Question .....</b> | <b>70</b> |
| <b>Appendix 6: Average Attribute Level Preference .....</b>                           | <b>71</b> |
| <b>Bibliography: .....</b>  | <b>72</b> |

## List of Figures

|  |           |
|--|-----------|
| <b>Figure 1: The luxury rarity relationship</b> .....                          | 19        |
| <b>Figure 2: Adapted Framework of Prestige-Seeking Consumer Behavior .....</b> | <b>23</b> |
| <b>Figure 3: Conceptual Framework .....</b>                                    | <b>32</b> |

## List of Tables

|   |           |
|---|-----------|
| <b>Table 1: Framework of Prestige-Seeking Consumer Behavior .....</b> | <b>22</b> |
| <b>Table 2: Description Attribute Levels .....</b>                    | <b>36</b> |
| <b>Table 3: Respondents' Age and Gender Distribution .....</b>        | <b>39</b> |
| <b>Table 4: Luxury Segment Distribution .....</b>                     | <b>41</b> |
| <b>Table 5: Overview Relative Attribute Importance .....</b>          | <b>43</b> |
| <b>Table 6: Willingness to Pay: Luxury Segment Values.....</b>        | <b>50</b> |
| <b>Table 7: Willingness to Pay Age Comparison per Segment.....</b>    | <b>53</b> |
| <b>Table 8: Hypothesis Result Overview .....</b>                      | <b>56</b> |
| <b>Table 9: Income Distribution among different Generations.....</b>  | <b>61</b> |

# 1. Introduction

In recent years, the topic of sustainability has become increasingly important due to catastrophic developments and predictions of future scenarios. For instance, calculations by the Global Footprint Network in 2018 reveal that, with our current way of living, 1.75 Earths would be required to produce the natural resources, which would be necessary to sustain our current ecological footprint. Furthermore, research from the Stockholm Resilience Center in 2022 indicates that five out of nine planetary boundaries have already been exceeded, which can result in irreversible, large-scale environmental changes, jeopardizing human development as we know it (Persson et al., 2022). Moreover, in 2021 the global CO<sub>2</sub> emissions exceeded the 40 billion tonne threshold for the first time (Ritchie, 2020) without reaching the peak yet, as no drastic changes can be observed. According to Raupach et al. (2014), in order to comply with agreements such as the decisive Paris Climate Agreement, drastic measures must be taken to limit global warming to 1.5 or 2 C°. In order to mitigate or, ideally, prevent these life-changing prospects, practically all global governments have joined forces to combat climate change in treaties such as the aforementioned Paris Climate Agreement. As a result, new regulations and binding legal obligations are imposed on companies, requiring them to adopt a much more sustainable approach by 2030, producing more sustainably and eliminating or replacing environmentally harmful practices. (United Nations, 2016).

This affects companies from all segments and industries. One of the most affected industries, however, is the fashion industry. According to a McKinsey report, the fashion industry is accountable for emitting approximately 2.1 billion metric tonnes of CO<sub>2</sub>e, which equates to roughly 4% of annual global GHG emissions (Berg et al., 2020). In addition, this figure has the potential to rise to 2.7 billion metric tonnes by 2030, which may result in the industry failing to achieve the objectives set out in the Paris Climate Agreement. As a result, the industry will not only incur financial burdens but, above all, reputational damages, which will have a negative impact on the desirability and purchase intentions of customers. In fact, in 2019, sustainability was already one of the most searched terms in the fashion industry (Browne, 2022).

It is worth noting that the majority of emissions within the fashion industry stem from fast fashion rather than luxury fashion. Nevertheless, the luxury sector is facing reputational damages in light of the industry's overall environmental impact. Given that luxury fashion relies heavily on its desirability by consumers to maintain its business model, this situation is particularly concerning (Kapferer and Bastien, 2012). Particularly because the luxury model

embodies many attributes that cannot be aligned with sustainability, such as the use of rare raw materials, social exclusion, and the notion of consumerism (Joy et al., 2012). Companies in the luxury segment have recognized this issue, with all major luxury fashion brands implementing changes such as recycling, animal-free leather, or vertical integration within their supply chain in order to operate more sustainably (Thomas, 2020). This highlights the importance for luxury companies to act now and develop a sustainability strategy to meet all climate targets and continue to be desirable for their customers while remaining competitive in the future.

While these changes may be necessary to meet regulatory standards, it is unclear whether they align with luxury perceptions and luxury fashion's business model. Moreover, it is important to determine if luxury consumers value sustainable luxury products and if they are willing to pay for them. Existing research has so far only investigated the compatibility between the luxury and sustainability concepts or examined the attitudes of luxury fashion consumers towards sustainability. Nevertheless, there is a literature gap in terms of quantitatively assessing a financial value to the sustainability of a luxury product.

Therefore, this research aims to quantitatively measure the sustainability of luxury fashion products based on consumers' willingness to pay. This allows luxury fashion companies to determine the feasibility of creating sustainable products that align with their customers' preferences. Such knowledge is crucial to ensure the financial viability of sustainable products and that they are in line with consumers' expectations.

In order to comprehend the most significant subjects in this particular context, the first section contains a three-part review of relevant literature. The first section examines sustainability, particularly its definition, impact on companies, and compatibility with the fashion industry. The second part examines the luxury industry, with a specific focus on its business concept, growth opportunities, and the different types of luxury consumers, along with their respective luxury purchase motivations. Thirdly, the willingness to pay and its measurement method is examined. The literature review concludes with the limitations of the literature. Based on these findings, the Theoretical Framework and Methodology describe the quantitative research approach, the applied research instruments, the expected results, and the sample description. Next, the results of the survey are examined, followed by a theoretical discussion in which the research question and the corresponding hypotheses are answered based on the findings. Concluding, the most important research findings are summarized, the limitations of the research are pointed out, and recommendations for companies and future research are given.

## 2. Literature Review

### 2.1 Sustainability:

#### 2.1.1 Definition of Sustainability

According to the World Commission on Environment and Development and the Brundtland report (WCED, 1987), the essential definition of sustainability is:

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, p.35)

Even though this definition is rather old and has been updated and adapted multiple times by various academic research and institutional definitions, it still grasps the fundamental understanding of sustainability and acts as a foundation for many other sustainable concepts, such as circular economy or recycling. Especially as the same report identified the three most important Pillars of Sustainability, which to this day are the foundation for a majority of scientific works and are generally considered core definitions of sustainability. According to Brundtland, these 3 pillars are comprised of economic, environmental, and social sustainability.

Taking into account that sustainable development requires the current generations to ensure the use of resources for further generations according to their needs, implies that the concept of sustainable development is constantly increasing. This is based on Hák et al. (2016), who highlight that the population is expected to grow, while the natural resources required to satisfy future generations' needs are not growing. On the contrary, by the current consumption, they are drastically decreasing (Hák et al., 2016). This concept further implies that sustainable development is a process that needs to balance the three pillars of economic growth, environmental integrity as well as social well-being.

Even though sustainability and sustainable development are mostly used interchangeably and as synonyms for each other, especially in non-academic and business backgrounds, they are, in fact, not exactly the same. According to Gray (2010) and Diesendorf (2000), sustainable development describes the process of achieving sustainability, which in turn is a fulfilled state that has been achieved (Diesendorf, 2000). While corporations can engage in the process of sustainable development, sustainability is a far larger topic, which a single corporation, country,

or industry cannot achieve. According to Gray (2010), sustainability is a system-based concept that only starts to make sense on a planetary or eco-system level (Gray, 2010).

However, if one looks at Gray's definition (2010) and realizes that an individual entity alone cannot decide on the systematic development of sustainability or sustainable development, the question arises as to why companies or other institutions should participate in sustainable development at all. Especially if this means additional costs without a direct return for the company (Tragedy of the commons). Based on Hák et al. (2016), participation in sustainable development means, above all, that companies must partially forego resources or use them more sparingly in order to leave sufficient resources for future generations. Thus, sustainable development not only causes costs but also prevents companies from generating increased revenues. Sustainability within corporations is called Corporate Social Responsibility, which is explained in more detail in the following section, as well as its development over time.

### 2.1.2 Corporate Social Responsibility

One of the fundamental definitions for corporate social responsibility (CSR) is based on Thomas M. Jones, who defines corporate social responsibility as “the notion that corporations have an obligation to constituent groups in society other than stockholders and beyond that prescribed by law or union contract.” (Jones, 1980) Even though this definition is already 43 years old, it perfectly represents the initial idea of CSR as a voluntary corporate action, which mainly focuses on taking several stakeholders, especially workers and local communities, into account and caring for them.

Even though there were first attempts at defining CSR before 1980, the basic and dominant picture at that time was that companies' only responsibility is profit maximization. As long as companies comply with the laws and regulations and pay their taxes, it is the responsibility of the government to take social responsibility and care for the community, workers, and social inequalities. One of the most famous authors and representatives of this theory was Milton Friedman, winner of the Nobel Prize in Economics in 1976 for his work *Capitalism and Freedom* (Friedman, 1962), thus endorsing the prevailing school of thought. According to Friedman, the role of a company in a free capitalist system is only the pursuit of economic benefits. Later, he further strengthened this theory through his work *The Social Responsibility of Business is to Increase its Profits* (Friedman, 1970), in which he explains that CSR activities are an unjustifiable corporate expenditure and inappropriate use of corporate resources that are used in favor of the general social interest instead of corporate interests.

The aforementioned CSR definition by Jones (1980) highlights the initial focus on the social aspect of corporate responsibility and functioned as a preliminary version of the stakeholder theory, which was first published in 1984 by R. Edward Freeman in his book *Strategic Management: A Stakeholder Approach*. (Freeman, 2010). According to Freeman (2010), when making decisions, corporations must consider all stakeholder groups to ensure long-term success. He further defines stakeholders as any party with an interest in the company that can either be affected or affect the company (Freeman, 2010). These stakeholders have a moral claim towards the corporation as the corporation has the potential to harm or benefit them. Vice versa, the stakeholders are indispensable for the success and survival of the company, which is why it is crucial for corporations to address these stakeholders in order to be successful in the long term.

However, the understanding and definition of CSR has changed and evolved over the past years, with the current focus no longer only on the social responsibility of firms but also taking into account a responsibility towards the environment.

First indications of this change and the integration of other factors than only the social component were already evident in the Stakeholder Theory by Freeman. This already included first references to the environment as one of the stakeholders of companies due to the fact that the environment can affect or be affected by the company's actions (Freeman, 2010). The integration of nature and its effect on companies became concrete with the Triple Bottom Line concept, which was first defined and explained by Elkington and Rowland in 1994 (Elkington & Rowlands, 1999). The concept is groundbreaking as it not only measures the actions and influences of companies, and thus company performance, based on economic factors but also considers the positive and negative effects of company actions on social and environmental factors, which are also measured in financial terms. This results in a new accounting system that does not only measure companies based on their profit generation performance but also rewards good social and environmental actions and monetarily compensates for negative activities (Elkington & Rowlands, 1999). In this way, Elkington and Rowlands (1999) also follow Brundlandt's definition of sustainability by considering the pillars of economic, social, and environmental sustainability.

In the 2000s, the understanding of CSR evolved again and changed from a voluntary corporate action to a strategic tool. Marrewijk (2003) was the first to consider CSR from a more holistic background, stating that the position and role of companies within society have changed.

Therefore, companies have to make much more strategic decisions and fully incorporate CSR to adapt to this social context properly. (Marrewijk, 2003)

Subsequently, Werther and Chandler (2005) introduced the term strategic corporate social responsibility (SCSR). Their work *Strategic corporate social responsibility as global brand insurance* focuses particularly on the shift of “CSR from being a minimal commitment ... to a strategic necessity” (Werther & Chandler, 2005, p. 319). This strategic orientation is justified by the aim of companies to achieve and maintain legitimacy, especially in the context of a globalized world. Werther and Chandler (2005) also state that a successful and strategic implementation of CSR is only possible if it is carried out top-down and out of a "genuine commitment to change and self-analysis" (Werther & Chandler, 2005, p. 322). However, Werther and Chandler (2005) still perceive CSR as a way to generate a sustainable competitive advantage and therefore focus strongly on the companies' legitimacy and competitiveness, which can be enhanced by CSR actions. From their point of view, CSR is a strategic instrument to achieve these 2 goals, which makes it a great opportunity for companies and, therefore, increasingly essential and significant.

This understanding of CSR as a strategic tool is extended by Porter and Kramer in 2006, who in their article *Strategy & Society* highlight that companies can use SCSR while simultaneously generating shared value (Porter & Kramer, 2006). This implies that companies can use SCSR to increase their competitiveness (as already stated by Werther and Chandler (2005)) while simultaneously generating a real benefit for society. To identify opportunities for creating shared value, companies can follow two approaches. According to Porter and Kramer (2006), companies should first look inside out to identify possible positive and negative impacts of the company's value chain on society and then focus on the actions with the greatest strategic value. In addition, the company should also look outward to determine the impact of the social environment on the company's productivity and its business strategy (Porter & Kramer, 2006). According to Porter and Kramer (2006), this allows companies to learn and understand the interrelationships of the business and its social context. Accordingly, can adjust their business strategy to generate the greatest possible shared value.

Following Werther and Chandler's (2005) strategic CSR approach and Porter and Kramer's (2006) shared value concept, the next milestone for CSR was reached through several agreements, such as the Paris Agreement as well as the United Nations 2030 Agenda (2015),

including the Sustainable Development Goals (SDGs), which all have been launched in the year 2015.

The Paris Agreement is the result of the UN Climate Change Conference (COP21) held in Paris in 2015 (United Nations, 2016). The agreement is a legally binding treaty signed by 194 parties. It sets long-term targets for all nations with the intention of substantially reducing global greenhouse gases by 2050. The goal is to reduce human-induced climate change and the associated global temperature increase, which should be limited to a maximum of 2°C with further efforts to limit it to 1.5°C (United Nations, 2016).

The 2030 Agenda for Sustainable Development was also developed in 2015 and adopted by all UN Member States with the idea of creating peace and prosperity for humanity and the planet, now and in the future (United Nations, 2015). Therefore, unlike the Paris Agreement, it does not have a clear focus on only social or environmental factors but addresses the issues of people, planet, prosperity, peace, and partnership, which makes it much more comprehensive than the Brundtland Commission of 1987. At the core of the 2030 Agenda are the 17 Sustainable Development Goals (SDGs), which cover all areas of sustainability, inequity, and development (United Nations, 2015). Further, these 17 overarching goals are subdivided into 169 individual targets, each of which can be tracked through individual KPIs in order to monitor their development (United Nations, 2015).

Even though these agreements do not directly affect corporations, the countries that enter and participate in these agreements must introduce stricter laws and regulations to motivate and pressure companies (as one of the biggest contributors to the causes) to introduce stricter business practices or to intensify existing ones. This pressure also shifts the concept of CSR, as it is now finally an obligation for companies and not a voluntary decision, as originally defined by Jones (1980). Moreover, these agreements clearly show the shift from the original focus on social issues to a wide variety of actions and issues that companies have to take responsibility for. Namely, the Paris Agreement refers to environmental concerns, in particular, Co2 emissions and global warming (United Nations, 2016), whereas the SDGs deal with people (social issues), planet (environmental issues), prosperity (economic issues), peace and partnerships (United Nations, 2015).

New regulations and laws within the EU illustrate the increasing pressure on companies. In June 2022, the European Parliament and the Council passed the Corporate Sustainability

Reporting Directive (CSRD), which becomes effective in 2024 (European Commission, n.d.). This directive will replace the current Non-financial Reporting Directive by strengthening the existing rules for the publication and disclosure of social and environmental actions of companies. The underlying purpose is to provide stakeholders with better insights into company activities and to generalize the reporting standard, making information more comparable and assessable.

The previous Non-financial Reporting Directive was already applicable to around 12,000 large companies. However, the new CSRD will be even more extensive, covering a larger number of large EU-based companies as well as several EU SMEs (European Commission, n.d.). A company qualifies under this criterion as soon as it meets at least 2 of the following criteria: 1. more than 250 employees; 2. a turnover of more than 40 million euros; 3. total assets of 20 million euros (Stehl et al., 2022). Consequentially, this applies to almost 50,000 companies within the EU and highlights that sustainability issues in business are no longer a niche topic or a strategic competitive advantage but have become an obligation controlled and determined by law.

In conclusion, it can be said that over the last decades, society has recognized that companies have a greater role and responsibility within society, which they must utilize in a meaningful way. The requirements for CSR have evolved from a voluntary gesture to a strategic competitive advantage and legitimacy tool, to a duty with regulations. This leads to increased expectations and pressure from society and policymakers for companies to engage themselves both socially and environmentally towards a better future. It is no longer a tool to obtain a benefit and positively stand out; rather, the avoidance of CSR is now penalized.

This suggests that the pressure on companies will continue to increase in the future, and only companies with a truly convincing and vigorous CSR strategy, with sustainability at the core of their values, will be able to benefit in the long run. This is especially evident by observing the number of companies addressing sustainability issues, publishing reports on their websites, and strategically approaching the topic. This is particularly evident in the increasing number of corporate sustainability reports, which have been analyzed in a KPMG survey, conducted in 2020. While in 2020, 96% of the 250 largest global companies reported sustainability, this figure amounted to 35% in 1999 (KPMG, 2020).

### 2.1.3 Sustainability in the Fashion Industry

The fashion industry overall is a major contributor to the global economy, but it also has significant environmental impacts (Mukendi et al., 2020). The production and consumption of fashion goods can have harmful effects on the environment, including waste generation, resource depletion, and pollution. Overall, the negative impact of the fashion industry can be classified into two groups: on the one hand, the negative impact caused by the harmful production methods and, on the other hand, the negative impact that occurs over the entire product life cycle, which, even after the actual production, can have a detrimental effect on the environment.

One of the biggest negative impacts the fashion industry has on the environment is through the production of its products and the associated complex global supply chain. The complexity of the supply chain is caused by the fact that large parts of the clothes are produced in developing countries with cheaper labor, the various raw materials come from different countries, and the final products are sold in other, mostly western, countries. These international structures result in high transportation and shipping efforts, which generate massive Co2 emissions. Statistics indicate that the fashion industry produces around 2.1 billion tonnes of Co2 emissions annually, which corresponds to approximately 4% of global annual Co2 emissions. (Berg et al., 2020). Furthermore, the production of clothing, especially with the use of synthetic fibers, causes large amounts of pollution, including toxic emissions from dyeing and finishing processes (Gereffi et al., 2005). Moreover, the use of chemicals and other toxic substances in clothing fabrication can harm the environment and human health (Kozlowski et al., 2012). In addition, high amounts of water are required to manufacture clothes, both for producing raw materials and in the manufacturing process. It is estimated that up to 92 million tonnes of water are used annually in the fashion industry, representing 20% of the global water consumption (Centobelli et al., 2022) and thus highlighting the massive impact on the environment (Niinimäki et al., 2020). This high, negative impact on the environment is mainly a consequence of the size of the fashion industry and the increase in fast fashion, which is primarily designed to sell large quantities.

To achieve this, fast-fashion manufacturers have to produce as cheaply as possible and generate high consumption, which they achieve through ever-new trends and short product life cycles. The continuously increasing number of manufactured clothes also creates the problem of resource depletion. The production process uses a variety of natural resources, such as water, energy, or fabrics, which are often extracted from the earth in an unsustainable way, leading to environmental degradation and loss of biodiversity (Gereffi et al., 2005).

However, it is not only the production of clothes that has a negative impact on the environment but also the use of clothes. One of the most important environmental impacts of the fashion industry is waste generation. The fast-moving nature of fashion and the focus on trend-driven consumerism result in many clothes being disposed of after a single season or even after being worn once (Niinimäki et al., 2020). According to a study by the Ellen MacArthur Foundation, the fashion industry generates 92 million tonnes of waste annually, much of which ends up in landfills (Ellen MacArthur Foundation, 2017). This waste not only takes up valuable space but also contributes to further greenhouse gas emissions and the release of environmentally harmful toxins. A further problem of the fashion industry is that the washing of synthetic fibers releases microplastics into the water cycle, which can negatively impact people's health (Li et al., 2017).

In order to minimize these negative impacts and to make the industry more sustainable, brands have undertaken various actions and enhancements. According to scientific findings, the first step towards more sustainability in the fashion industry is to ensure that the production of clothes is carried out in a more sustainable way, resulting in a lower environmental impact of new clothes. In order to manufacture a fashion product more sustainably during production, the aforementioned problems need to be addressed. According to Centobelli et al. (2022), there are several ways to reduce water consumption, such as using organic cotton instead of conventional kinds of cotton or using waterless dyeing methods, as these two factors are the main causes of high water consumption (Rathore, 2023). In addition, factories can be transformed to incorporate wastewater treatment, which can further save water (Centobelli et al., 2022). As a large part of the high CO<sub>2</sub> emissions is caused by international production and the resulting transport routes, these emissions can largely be reduced through local production, supply chain optimization, and less international trade (Valodka et al., 2020). With regard to toxic chemicals, other treatment methods, such as dyeing with environmentally friendly paints or fixing agents, can be used. In addition, the use of new technologies, such as nanotechnology, that can treat the toxicity of wastewater, can help to reduce toxic chemicals (Uddin, 2021). Moreover, using higher-quality materials is beneficial as they are often organic rather than synthetic and therefore have a lower impact on the environment. Overall, the greatest harm from the fashion industry is caused by the high volume of products manufactured by fast fashion companies. Thus, a shift towards slow fashion and the extended use of products, as well as reduced consumption, would have a significant positive impact on the environment.

However, as mentioned in the preceding paragraph, not only the production of fashion but also its use has a negative impact on the environment. To reduce the biggest problem of waste in particular, companies need to establish return policies, actively pursue recycling and implement systems such as the closed-loop supply chain (Sgarbossa & Russo, 2017). Overall, the most sustainable goal should be to create a circular economy in which previous waste products can be used as new raw materials for production, and thus, theoretically, no new waste is generated, and the principle of reduce, reuse, recycle is applied (Kirchherr et al., 2017). In this way, sustainability is ensured throughout the entire product life cycle and not just in the actual production.

In summary, the first step towards sustainability in the fashion industry lies within the sustainable production of products, which is largely achieved by reducing Co2 emissions, water usage, and toxic chemicals. However, a more significant and sustainable impact can be achieved by considering the entire product lifecycle and achieving a long-term circular economy.

## 2.2 Luxury:

At the time of publication, Bernard Arnault, with his holding company Groupe Arnault, which is the majority shareholder in Christian Dior S.A. and owns 47% of LVMH shares, is the richest person in the world with an estimated fortune of 195.6 billion USD. This surpasses the wealth of even the most cutting-edge technology company owners, such as Tesla owner Elon Musk and Amazon CEO Jeff Bezos. (Forbes Media LLC., 2023) Even after the Covid crisis and the collapse of the global stock markets, luxury companies such as LVMH and Kering were among the fastest-recovering businesses, causing a characteristic "V" development in the stock market and quickly raising their value well above pre-Covid levels (Wang et al., 2022)

Yet what makes the luxury industry so exceptional, financially successful, and relevant today, even if many of its concepts are based on tradition and heritage?

The following will explain the luxury business concept and its particularities.

### 2.2.1 Luxury Concept:

Companies within the luxury segment operate according to different rules and are partially detached from the normal conditions and principles that are taught and researched in business schools and academic literature. Jean-Noël Kapferer, one of the most renowned and acclaimed academics in the field of Brand Management and Luxury Management, stated: "Luxury is an industry like no other: it is the only one for which growth creates a problem. Is lack of demand

the source of the problem? No. The problem is exactly the opposite: excess of demand" (Kapferer, 2015, p. 1).

To understand this quote, one needs to understand the underlying business concept of luxury companies. Looking at the origin of the word luxury, which derives from the Latin "luxatio", meaning "result of going apart" and "making a leap". This highlights luxury's idea of creating a distance or gap. The intent of this specific gap is that luxury is reserved for a certain group of people who distinguish themselves from non-members of this group. By buying luxury goods, with their associated high prices, buyers can distinguish themselves from non-buyers and clearly demonstrate their affiliation with a particular group. Kapferer describes this gap and, thus the basic idea of luxury, as "the ordinary of extraordinary people and the extraordinary of ordinary people" (Kapferer, 2012, p. 461).

In order for this gap and system to work, the following conditions must be achieved.

1. Luxury companies' products or services must have a very high visibility and thus generate high awareness among society. This is not limited only to consumers of luxury but to society as a whole. Consequently, in the luxury sector, advertising and promotion are conducted beyond the target group in order to ensure that as many people as possible recognize a luxury product, irrespective of whether or not they can afford it.
2. The access to luxury goods has to be highly restricted and the penetration within the market has to be minimal. This can be achieved on the one hand by the high price, whereby fewer people are able even to afford the product, or on the other hand by a restricted quantity of products and thus limited supply. Regardless of the price, only a certain limited number of products are available, further restricting accessibility.

These two factors result in the following equation:

### **Equation 1:**

#### *Luxury Equation*

$$\begin{array}{l} \text{High Visibility} \\ \text{High Awareness} \end{array} > \begin{array}{l} \text{Restricted Access} \\ \text{Low Penetration} \end{array} = \text{Brand Desirability}$$

*Note.* Author's own equation based on Kapferer and Bastien (2012)

The larger this gap is (i.e. the higher the visibility and awareness or the lower the access and market penetration of the product is), the higher is the resulting desirability for a particular product. Due to this desirability, the dream of owning one of these luxury goods arises, and with it, the demand and price one is willing to pay increases.

It is the strategic task of luxury companies to manage the gap and, in the best case, to amplify it and thus exploit the luxury model as far as possible.

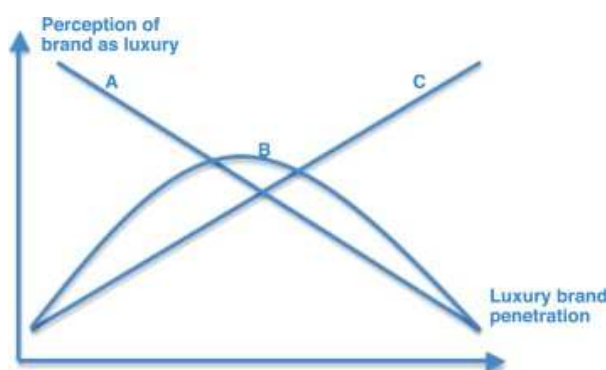
### 2.2.2 Economic Growth in the Luxury Industry:

Referring back to the quote from Kapferer (2012) mentioned previously, this luxury equation explains why growth is such a challenging concept for luxury companies and why the normal rules of business and marketing are not applicable to the luxury industry.

In order to achieve growth, non-luxury companies would try to generate more demand through marketing and promotions and thus sell more products. However, this approach is impossible for the luxury industry since, even with increased demand, they would not be able to sell more products. The reason for this is that they would no longer restrict access so severely, which would result in a larger product supply on the market and lower prices, which would lead to less desirability (Kapferer, 2012). As a result, the company loses prestige and embodies less of the consumer's luxury dream. This can lead to frustration among existing customers, as the products represent the affiliation and segregation of a particular group to a lower extent. Therefore these customers are less interested in the products. Thus, the luxury company does not gain more with the newly sold products (higher access with lower price) than it loses through the old customers.

#### **Figure 1:**

*The luxury rarity relationship*



*Note.* Source: Kapferer (2012)

In Figure 1, this tipping point is shown as point B, at which the desirability of the firm stops increasing and starts to decline. In theory, at this point, the luxury good's supply (line B) equals or exceeds its demand (line A), which indicates that the luxury equation no longer functions and the firm loses its desirability. The axes of the graph show that additional penetration and thus visibility can help to increase the perception of luxury. However, as soon as the penetration rises to a certain level, the perception of luxury decreases, and the brand loses its value.

This demonstrates that luxury companies are not able to grow through increasing demand or the number of products sold but only through a higher price.

In his book *Kapferer on Luxury: How Luxury Brands Can Grow Yet Remain Rare*, Kapferer expresses it as follows:

"Growth in luxury is a fragile concept and mixed blessing". (Kapferer, 2015, p. 2)

Thereby he alludes to the fact that it is not entirely transparent what level of demand is appropriate, as too much leads to the above-mentioned problem and the loss of desirability. However, too little demand leads to uncovered costs and companies not being profitable. Nevertheless, once the appropriate demand has been identified, the company can achieve high luxurious margins, which are not achievable in other industries.

In recent years, an important growth driver in the luxury industry has been the influence of the online luxury market. According to the Luxury Report by Bain & Company (2021), the size and share of the online luxury market doubled from 2019 to 2021 alone. According to Lee et al. (2020), this trend is mainly driven by the luxury consumer group of Generation Y and Z, indicating the impact this customer group has on the overall luxury industry. According to Bain & Company (2021), the luxury segment of Generation Y and Z is expected to account for 70% of all global luxury customers by 2025. Through this emerging group, with its unique demands, such as higher digital affinity (Lee et al., 2020) or higher sustainability awareness (Gazzola et al., 2020), luxury companies can and must adapt accordingly to attract this important customer group. Thus, they can capitalize on these customers and secure further growth.

### 2.2.3 Luxury Consumers:

The purchase of luxury goods and services fulfills 2 interrelated reasons for customers. The first is the sociological factor (Batat, 2019), which was briefly mentioned before. Due to the created gap, luxury goods are only destined for a certain group where the possibility of being

able to afford a luxury good demonstrates the affiliation to this superior social group. Luxury goods embody and represent the social status within society and emphasize this position (Nelissen & Meijers, 2011). Although this social status is often predetermined for financially wealthy people due to the high price of luxury goods, this group affiliation and prestige can also be achieved in other ways. Predominantly, it is achieved through the very limited supply of luxury products, where even the theoretical ability to afford such a luxury product does not enable access to it, as it is simply not available. By owning such a product, the owner may show his personal contacts, a long customer relationship, or his special position within society (celebrity, royalty, etc.). This system is used, for example, with luxury watches (Richard Mille), luxury cars (Bugatti), or even luxury fashion (Birkin Bag), where even customers who could financially afford the products often do not have access to the product.

The second reason is the psychological factor, as luxury customers buy the products not only to gain social prestige but also for themselves. For customers, buying a luxury item fulfills their dream, and they feel pleasure and a sense of exceptionality when owning the luxury item (Kapferer, 2017). It also gives the user a feeling of achievement and pleasure.

#### 2.2.4 Luxury Purchase Criteria:

Ordinary consumer goods are mainly evaluated according to economic factors where the consumer decides on the basis of the perceived value and the given price whether to purchase the product or not (Drumwright, 1994). However, as mentioned in a previous paragraph, the luxury industry does not follow normal economic rules, hence also other purchase criteria apply. Several scientific works have analyzed luxury consumers' purchasing behavior and values to understand what criteria drive luxury consumption.

The pioneering research on consumer behavior and purchase criteria within the luxury industry was conducted by Vigneron et al. (1999), who developed a conceptual framework of prestige-seeking consumer behavior. The authors recognize that luxury consumption follows 5 different values of luxury, which in turn resemble the 5 different motivations of consumers to engage in luxury purchases. These values and their respective motivations are as follows.

**Table 1:**

*Framework of Prestige-Seeking Consumer Behavior*

| Values      | Motivations   |
|-------------|---------------|
| Conspicuous | Veblenian     |
| Unique      | Snob          |
| Social      | Bandwagon     |
| Emotional   | Hedonist      |
| Quality     | Perfectionist |

*Note.* Author's own Table adapted from Vigneron et al. (1999)

Conspicuous defines a luxury product's visibility and ability to be recognized. As a result, this motivates veblenian customers, who want to impress others and use luxury products as a symbol of wealth.

Unique resembles the luxury's inherent concept of exclusivity and rarity, which motivates snob customers who want to differentiate themselves from others and create their own unique identity through the use of luxury products.

The social value of luxury goods results in the bandwagon effect, where consumers have very similar motivations to the snob effect – both motivations aim to increase the consumer's self-concept. However, instead of trying to differentiate oneself, as seen in the snob motivation, bandwagon consumers try to differentiate themselves from non-luxury consumers and belong to the exclusive group of luxury consumers. They put greater emphasis on a good social impression and the effect they have on others.

Luxury products' emotional value can be caused by the sensory pleasure, excitement, or beauty of luxury products, which motivates hedonist consumers. These consumers engage in luxury purchases not because of interpersonal effects but rather because of personal effects. The luxury purchase is motivated by the personal enjoyment and feeling of accomplishment the consumers gain, instead of the social recognition.

Luxury's high focus on exceptional quality motivates perfectionist consumers, who are willing to pay a significantly higher price for higher quality. These consumers have their own perception of the product's quality however, they associate certain brands and a higher price as evidence of a higher quality.

This concept has been further advanced by Wiedmann et al. (2009), who, based on Vigneron et al. (1999), first clustered the existing values and extended these with additional relevant luxury values (Figure 2). This resulted in a total of 4 larger clusters, which are divided into Financial Value, Functional Value, Individual Value, and Social Value (Wiedmann et al., 2009).

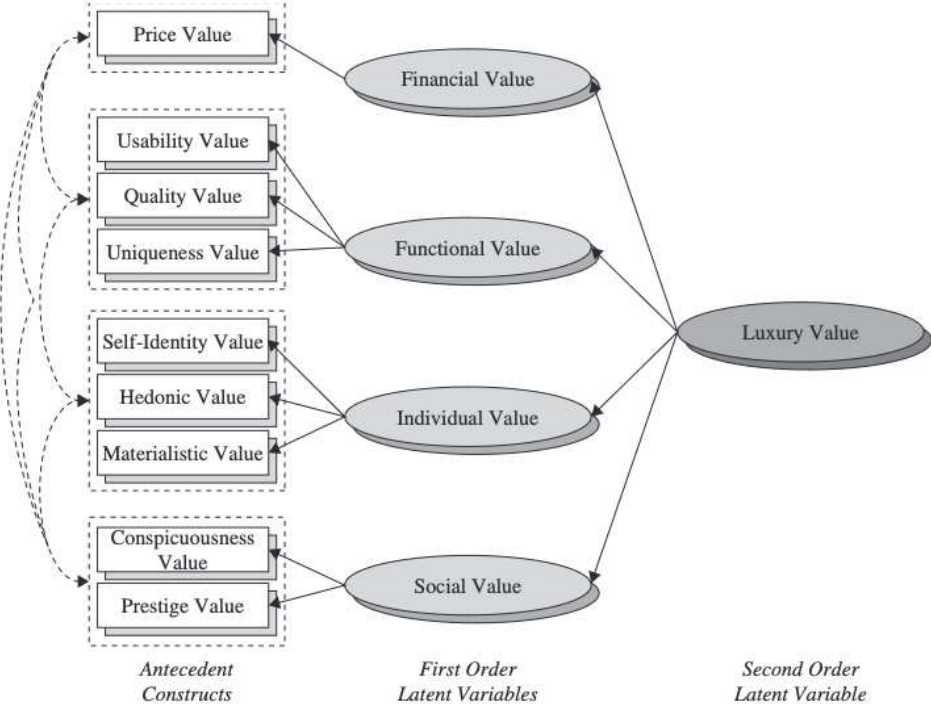
According to Wiedmann et al. (2009), the financial value of luxury refers to the monetary aspects of luxury products, such as the premium price, discount strategies, the investment into it, and the possibility of luxury setting itself apart from other products due to the high price.

The functional value describes the main product advantages and the basic utilities such as durability, uniqueness, quality, or useability of a luxury good. Wiedmann et al. (2009) cluster Vigneron et al.'s (1999) unique and quality values into this coherent category.

The individual value of a luxury good includes personal concerns such as hedonism, self-identity, or materialism and fundamentally describes the personal orientation towards luxury.

Finally, Wiedmann et al. (2009) describe Social Value as the ability of luxury goods to be recognized within a social group and thus to provide recognition and approval to the proprietor within this social group. Social value encompasses and clusters pre-existing values such as conspicuousness and the prestige of a luxury good or brand.

**Figure 2:**  
*Adapted Framework of Prestige-Seeking Consumer Behavior*



Note. Source: Wiedmann et al. (2009)

In a later study, Hennigs et al. (2013) confirmed these 4 larger, clustered values and additionally highlights their applicability to determine sustainable luxury consumption.

Based on Hennigs et al. (2013), Jain, S. (2019) applied these 4 clusters to sustainable luxury consumption and highlighted the individual and social value in particular, which are key drivers for the consumption of sustainable luxury (Hennigs et al., 2013). According to Jain (2019), in contrast with the other two motivations and luxury consumption drivers, consumers who value luxury goods because of personal and social values have a much higher probability of engaging in sustainable luxury consumption. (Jain, 2019)

The first attempts to quantify the influence of different motivations on the consumption of sustainable luxury goods have been investigated by Alghanim and Ndubisi (2022). In their research, they refer to the 5 values of the prestige-seeking consumer behavior framework by Vigneron et al. (1999) and examine their influence on sustainable luxury consumption.

Their research concludes that the luxury values unique and quality have the highest positive influence on sustainable luxury consumption. The values of social and conspicuousness also positively influence sustainable luxury consumption, although this influence is less pronounced than the previously mentioned values. In contrast, the emotional value is the only luxury value that negatively influences the consumption of luxury.

However, this research is inconsistent with the findings of Jain, S. (2019), as the emotional value, which has a negative effect on the consumption of luxury from the prestige-seeking consumer behavior framework, can be equated with the individual value of Wiedmann et al. (2009) However, Jain (2019). argues in his research that the individual value has a positive effect on the consumption of luxury goods. In contrast, Jain (2019) argues that the functional value, comprised of Vigneron et al.'s (1999) unique and quality values, does not positively impact the consumption of sustainable luxury. However, in the research of Alghanim and Ndubisi (2022), these two values have the strongest effect on the consumption of sustainable luxury consumption.

### 2.3 Luxury and Sustainability:

As the two concepts of sustainability and luxury have been explained in the previous paragraphs and the negative effect of the fashion industry on the environment has been highlighted in paragraph 2.1.3, the following part will focus on the compatibility between luxury and

sustainability. Some aspects of the luxury concept are very compatible with sustainability, whereas others are completely contradictory.

According to Carcano (2013), one of the key similarities between the luxury concept and sustainability is that both have a high interest in the durability of products. For the luxury concept, this high durability and longevity result from the high quality of the products. For luxury, quality is the most important and indispensable product attribute, and only the highest standards of quality are considered appropriate by the luxury industry (Kapferer, 2010). In contrast to fast fashion, the luxury industry is focused on creating timelessness in its products, not chasing trends, but rather creating products that last, often for a lifetime, and can be enjoyed forever (Carcano, 2013). This counteracts the notion of consumerism and wastage, which is often present in fast fashion (Bhardwaj & Fairhurst, 2010).

Another aspect is that luxury is desired due to its exclusivity and consequently does not produce high quantities but rather manufactures products in small quantities and not in large masses (Dekhili et al., 2019). However, these large masses are precisely the biggest factor generating the negative impact on the environment in all industries. Kapferer (2010) exemplarily points out that it is not private jets that have the greatest impact on the environment, even if the per capita Co2 emissions are significantly higher, but the extreme mass of low-cost airlines, which in total cause the greatest contribution and damage to the environment. The same applies to luxury fashion, where the individual products are manufactured more elaborately and thus cause more damage to the environment, yet in total, have a much smaller impact on the environment than the large masses of conventional products. The fundamental luxury element of high prices also ensures that luxury products are only accessible to a few people, which limits overall demand, ensuring that overconsumption is limited (Dekhili et al., 2019).

According to Kapferer (2010), one of the main compatibilities between the concept of luxury and sustainability is the resource dependency of luxury. Many products require rare, exotic materials to affirm their exclusivity. However, since these materials are so scarce and luxury companies want to sell these products on a long-term basis, they are particularly interested in the sustainability of these materials. Whether it is rare metals, animal products such as pearls or leather, or precious gems such as diamonds (Wang et al., 2021).

Even though these factors indicate compatibility between the luxury concept and sustainability, there are also some factors where both concepts are incompatible with each other.

Especially the above-mentioned argument of rare raw materials as a compatibility can also be interpreted as a very strong indicator of the lack of sustainability in the luxury industry. For the exclusivity of its products, the luxury industry uses rare animal materials, often sourced from endangered species, thereby contributing to the extinction of these species (Wang et al., 2021). Even though the luxury industry produces these products in small quantities, these materials and animals cannot be replenished fast enough to source the materials sustainably and conservatively. The mass cultivation and cruel methods of animal killing, especially rodents, for fur extraction are based on the luxury industry's notion of using such skins as a symbol of quality, exclusivity, and prestige (Ramchandani & Coste-Manière, 2017). However, these practices cannot be reconciled with the concept of beauty symbolized by the luxury industry (Kapferer, 2010). Furthermore, as already stated in paragraph 2.2.1, the basic concept of the luxury industry encompasses social exclusion and the social elevation of a certain exclusive group (Dubois et al., 2021). However, this is not consistent with the idea of sustainability, which embodies equality (Agyeman, 2008). Even if the luxury industry provided the most sustainable solution, due to the luxury concept, only very few people could benefit from it. However, as sustainability is not a singular solution but a whole system, it also requires systematic solutions hence the luxury industry cannot be considered a viable choice (Agyeman, 2008).

The last aspect of incompatibility between the luxury industry and sustainability is what Dekhili et al. (2019) define as consumerism. The luxury industry embodies consumerism in its purest form, as luxury, in its definition, is unnecessary, excessive consumption (Brun & Castelli, 2013). Sustainability, on the other hand, is defined by altruism and moderation and therefore corresponds to the exact opposite of luxury.

Despite the contradictions and inconclusive findings regarding the compatibility between luxury and sustainability, it has to be mentioned that, especially for the luxury fashion industry, sustainability can offer great opportunities. Most of the sustainability problems the fashion industry faces, as mentioned in 2.1.3, can be solved by the luxury business model, especially in terms of durability, high quality, and timelessness of the products.

#### 2.4 Willingness to pay:

Willingness to Pay (WTP) is an important concept in economics that refers to the maximum amount of money an individual is willing to spend for a particular good or service (Le Gall-Ely, 2009). There are several methods to determine the willingness to pay. Miller et al. (2011) examined 5 different methods, such as the open-ended question format or the choice-based

conjoint analysis, and compared them with real purchase data. Their findings revealed, especially for the latter, that conjoint analysis can accurately replicate pricing decisions. Le Gall-Ely (2009) confirmed choice-based conjoint analysis as one of the most significant methods to determine willingness to pay but noted that this evaluation method can suffer from hypothetical bias. This is the case because purchase decisions are made in a hypothetical scenario.

The study of willingness to pay has received significant attention in the field of luxury consumer goods, with a focus on determining consumers' willingness to pay for premium products and luxury brands. One of the earliest studies on WTP for luxury goods was conducted by Dolan and Simon (1999), who found that product attributes, perceived quality and brand image, influenced consumers' willingness to pay for luxury brands. They concluded that consumers were willing to pay a premium price for luxury goods because of the perceived value they associated with the product and brand.

In studies by Chandon et al. (2000) and Kim and Ko (2007), the authors explored the effect of brand knowledge and brand image on consumers' WTP for luxury products. They found that consumers with higher levels of brand knowledge and brand image were more willing to pay a premium price for luxury goods. The authors also found that consumers' WTP was positively influenced by their perception of the brand's exclusiveness, reputation, and quality.

In a more recent study, Bozbay and Özkan (2016) examined the role of consumer emotions in determining WTP for luxury goods. The authors found that consumers' emotional reactions to luxury brands and products significantly influenced their WTP for luxury goods (Bozbay & Özkan, 2016). They also found that consumers' willingness to pay was positively influenced by emotions such as pleasure, excitement, and admiration.

The literature on willingness to pay for luxury consumer goods suggests that consumers are willing to pay a premium price for luxury brands and premium products due to the perceived value they associate with the product and brand. Brand knowledge, brand image, exclusiveness, reputation, quality, and consumer emotions have all been found to play a significant role in determining consumers' WTP for luxury goods. Existing literature further suggests that one of the best methods to determine the willingness to pay of consumers is through choice-based conjoint analysis.

### 2.5 Literature Limitations:

In the paragraph on luxury purchase criteria, the highlighted research by Alghanim and Ndubisi (2022) and Jain (2019) illustrates that research in this field is still very fragmented, conflicting, and inconclusive. Furthermore, it is evident from these 2 pivotal publications that the topic of sustainable luxury fashion is still vastly unexplored and an emerging topic, as both studies have only been published within the last few years.

On the one hand, the pioneering research by Vigneron et al. (1999), Wiedmann et al. (2009), and Hennigs et al. (2013) explains what type of luxury customer groups exist and what core motivations and purchase criteria these groups have for buying luxury goods.

However, more recent studies by Jain (2019) and Alghanim and Ndubisi (2022), indicate that the explanations and patterns of luxury consumers common to ordinary luxury goods do not provide a clear explanation for sustainable luxury consumption.

Furthermore, all previous research only refers to the purchase probabilities and the influence of the respective luxury motivations on the luxury consumption of the particular luxury customer group. Moreover, previous research merely examines the concept of sustainable luxury or refers to the concept as a whole rather than to sustainable product features. None of the research can actually measure and quantify the value that the respective customer groups attribute to sustainability. However, precisely this would be an important insight, which is particularly relevant for companies in the luxury sector, as it provides an explanation of the stand-alone value of "product sustainability" for the respective customer groups. In fact, it may be plausible that conspicuous luxury customers generally see a positive value in the sustainability of a product for which they would be willing to pay a premium. However, due to their underlying motivation of brand awareness and prestige, they might not be interested in sustainable luxury fashion, as brands in the sustainability context convey a different image, which could have a negative impact on the product's luxury image. In contrast, these customers would presumably be willing to pay more money for a sustainable product feature offered by a renowned and prestigious luxury brand. In order to be able to identify exactly these backgrounds and understand luxury customers and their attitude towards sustainability, it is important to determine and quantify the willingness to pay for the individual luxury product features among the various luxury consumer groups.

### 3. Theoretical Framework:

Based on the previous research, especially the luxury value perceptions model by Wiedmann et al. (2009) and the corresponding research on sustainable luxury fashion, several assumptions can be made about the willingness to pay of the individual luxury customer groups.

#### Social Luxury Consumers:

Luxury customers who consume luxury products to gain social recognition, attention, and admiration are also likely to have a higher willingness to pay for sustainability as a product feature, as the topic of sustainability has become very contemporary and popular. This suggests that sustainable products reflect positively on the consumer as they do not harm the environment. This is the case in both normal consumer goods and luxury products. However, there are also studies by Achabou and Dekhili (2013) that show that customers were less willing to buy recycled products from Hermès because this was not in line with the status and image of the brand. If the exclusivity and prestige of the brand are important to social luxury consumers and this is the most important feature for social recognition, then previous research suggests that these customers have a reduced willingness to pay for sustainability as a product feature, as this interferes with the luxury image.

*H1: Social Luxury Consumers have a lower willingness to pay for sustainability as a luxury product feature than the average luxury consumer.*

#### Individual Luxury Consumers:

Consumers purchasing luxury products for their own self-fulfillment, personal feeling of accomplishment, and personal enjoyment are also likely to have a higher willingness to pay for sustainability in luxury products. This assumption is based on the fact that customers have a better attitude towards purchasing luxury products if they do not cause any environmental harm. Consequently, they consume luxury products with a clear conscience and without any negative perception afterwards. Especially in the luxury sector, the phenomenon of post-purchase guilt due to "unnecessary" consumption can be observed. This effect has been observed by Ki et al. (2017), and for which Wang et al. (2021) suggest that a sustainable product can mitigate this effect, as the product has a higher purpose than mere consumption.

*H2: Individual Luxury Consumers have a higher willingness to pay for sustainability as a luxury product feature than the average luxury consumer.*

#### Functional Luxury Consumers:

For luxury consumers, who purchase luxury products due to the higher quality, good craftsmanship and durability as well as know-how, will have a higher willingness to pay for sustainability features. As Kapferer and Michaut (2015) have already discussed, these values are in harmony with each other and it can therefore be assumed that customers appreciate sustainability features and are willing to pay a higher price if sustainability aspects are incorporated with greater significance in the product. (Kapferer & Michaut 2015)

*H3: Functional Luxury Consumers have a higher willingness to pay for sustainability as a product feature, than the average luxury consumer.*

#### Financial Luxury Consumers:

According to Wiedmann et al. (2009), financial luxury consumers place a significant value on the price they pay for a luxury good, as they perceive a high price to be emblematic of a stronger image, a higher reputation and superior quality. Research by Groth and McDaniel (1993) shows that a price increase within the luxury segment significantly increases the desirability and demand among this financial customer segment. However, for these customers, only the brand and its associated prestige and image are the primary factors driving this customer group to engage in luxury purchases. Since they are not interested in other aspects of the luxury industry, such as craftsmanship or history, it can be assumed that this customer group also does not have an increased willingness to pay for the sustainability of a luxury product.

*H4: Financial Luxury Consumers have a lower willingness to pay for sustainability as a product feature than the average luxury consumer.*

Sustainability is an increasingly important topic that has also found its way into the luxury fashion industry. Even though, in contrast to other industries, the luxury sector operates according to different economic rules and has its own particularities, sustainability is also an important component of the customer's purchasing decision. According to Kapferer, sustainability is an "implicit need" (Kapferer & Michaut, 2015, p. 15), despite the fact that luxury consumers rarely mention it as the main motivation for luxury consumption. Aspiring luxury companies such as Stella McCartney are redefining luxury (Balconi et al., 2019) by incorporating sustainability as a core principle of the brand and are thereby receiving great approval within the luxury community (Franco et al., 2019).

As a result, it can be assumed that luxury consumers generally value sustainability and that it is perceived as an important attribute, especially in relation to other luxury values.

*H5: Relative Attribute Importance of sustainability is amongst the top 3 luxury values among all luxury consumers.*

As previous research has shown, people of younger generations, Gen Y&Z in particular, have a greater understanding and interest in sustainability and critically reflect on society's over-consumption, more so than previous generations (Gazzola et al., 2020). Hence, younger generations are also much more concerned with companies' environmental impact, production processes, and the sustainability of their final products. At the same time, studies in the luxury sector show that these younger generations are becoming an increasingly important customer segment (Giovannini et al., 2015). Based on these two findings, it can be assumed that younger luxury consumers value and appreciate sustainability in products and thus have a higher willingness to pay for sustainability in the luxury fashion segment compared to older generations who do not value sustainability as much.

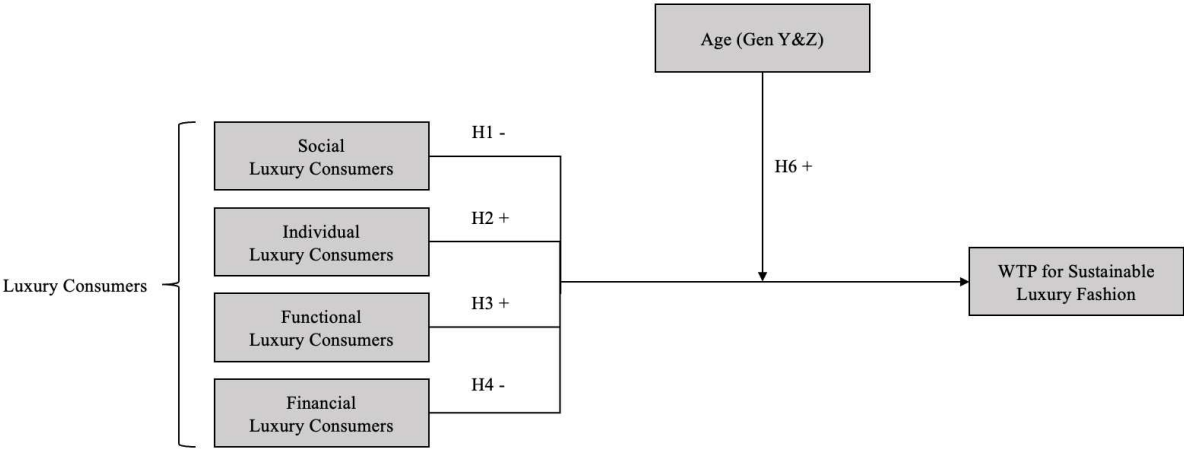
*H6: Younger luxury consumers (Gen Y&Z) have a higher willingness to pay for sustainable luxury fashion than the average luxury consumer.*

Finally, these hypotheses aim to explain which luxury aspects have an impact on the willingness to pay for sustainable luxury fashion and elaborate on how this can affect the willingness to pay. Overall, this refers to the fundamental research question of this thesis, which tries to address the existing research gap, its inconclusive findings, and the lack of quantifiability of sustainability. Therefore, the aim of this research is not only to quantify the willingness to pay in a monetary value but also to explain the different factors which may influence it. Therefore, this paper addresses the research question:

**What effect does sustainability have on consumers' willingness to pay in the luxury fashion industry?**

The following conceptual framework illustrates the correlations of the examined variables and the influence they have on the willingness to pay for sustainable luxury fashion. The different luxury consumers are expected to have a direct influence on the willingness to pay, whereas age is expected to have a moderating effect on all luxury consumer segments.

**Figure 3:**  
*Conceptual Framework*



*Note.* Source: Author’s own illustration

#### 4. Methodology:

In order to explore this research question and the hypothesis, both primary and secondary data were collected and analyzed. Using a deductive reasoning approach, secondary data was first collected in the form of literature reviews of academic journal articles, books, or reports. The resulting insights served as contextual knowledge for understanding the relevant subjects, provided insights into preliminary research, and investigated existing knowledge in the areas of sustainability, luxury, fashion, and willingness to pay for products in these categories. Primary data was collected in the form of a choice-based conjoint analysis, also called discrete choice analysis, to give potential luxury consumers a realistic multi-attribute choice decision that could occur in reality. Due to the correlational research approach, this study used a quantitative research method in the form of an online survey.

According to Breidert et al. (2017), due to the use of a choice-based conjoint analysis, luxury consumers are not asked about the importance of certain product attributes individually, but they are rather stated as attribute packages, requiring luxury consumers to make trade-offs between the individual product attributes. This prevents a social desirability bias, a common research bias especially on sustainability topics, as the actual intention of the survey and the direct reference to sustainability is not made on its own but rather camouflaged in an environment of choices (Roxas & Lindsay, 2012).

On the other hand, a conjoint analysis is one of the most effective and well-established methods to identify the willingness to pay for product attributes among a consumer group and to measure it quantitatively (Breidert et al., 2017).

Since a conjoint analysis always includes the factor of price, the individual product attributes can be measured not only in relation to each other but also in monetary terms. Although the luxury consumers were only ever able to select entire product packages containing a mix of individual attributes, these attributes can be examined individually in the subsequent evaluation. They can be subdivided into their respective part-worth utilities, attribute importance, and their marginal willingness to pay. These factors are determined by a hierarchical logistic regression, which enables the analysis of the individual product attributes within a group structure from which the individual preferences can be calculated. (Wong & Mason, 1985). According to De Pelsmacker et al. (2005), the scores and results of conjoint analysis are a realistic representation of the actual behavior of consumers.

#### 4.1 Conjoint Analysis Attributes:

Based on the knowledge gained in 2.2.4 about the subdivision of luxury fashion consumers according to their purchase motivation, 5 product attributes were used for the conjoint analysis. The participants themselves carried out the subdivision of the luxury consumers into the respective purchase reasons. However, they may not be familiar with the academic terms of social, individual, functional, or financial consumer. Therefore, for each purchase motivation, a product attribute was assigned, based on which the luxury consumers decided which attribute is most important to them when making a purchase. In the following section, these product attributes, their respective levels and the reasons for their selection are explained in more detail.

##### 4.1.1 Brand Prestige

This product attribute reflects Social Luxury Consumers, as this consumer group places a high value on the social status and recognizability of luxury products within a social group. According to Wiedmann et al. (2009), this group purchases luxury in order to gain social recognition. The authors also refer to the prestige of luxury brands and products within their explanation of social luxury consumers. This product attribute consists of 3 different levels, which are divided into High Prestige, Medium Prestige, and Low Prestige. High Prestige refers to very exclusive pure luxury brands such as Hermès or Chanel. Medium Prestige was classified as luxury brands, such as Louis Vuitton or Prada, which are more accessible and, therefore, not quite as prestigious. Low Prestige includes brands like Ralph Laurent or Hugo Boss, which are expensive and, therefore, socially desirable but not as prestigious as real luxury brands. The classification of brands according to their prestige and luxury level was based on the Brand Luxury Index by Vigneron and Johnson (2004).

##### 4.1.2 Quality

According to Wiedmann et al. (2009), the high quality and exceptional craftsmanship of luxury fashion is a motivation for functional luxury consumers to engage in luxury consumption. Hence, the survey asked about the quality of the product in order to identify Functional Luxury Consumers. This product attribute is likewise subdivided into 3 attribute levels, which are also differentiated into High Quality, Medium Quality, and low Quality. High Quality is characterized by fine and rare materials, which are processed with the highest craftsmanship. Medium Quality is further characterized by good, handcrafted workmanship but without the use of rare materials. Low Quality continues to use high-quality, non-rare materials, which are, however, produced by industrial processes and are not handcrafted.

#### 4.1.3 Feeling of Accomplishment

Luxury consumers who buy luxury articles for hedonistic reasons and in pursuit of their self-identity are, according to Wiedmann et al. (2009), individual luxury consumers. However, since few customers would describe themselves as hedonistic and the concept of self-identity can be interpreted in various ways as it is rather vague, the survey is filtered according to the personal feeling after a luxury purchase. According to Vigneron and Johnson (1999), customers who purchase luxury for personal reasons experience a strong sense of accomplishment, hence the survey filtered according to this attribute. Similar to the other product attributes, the Feeling of Accomplishment is subdivided into 3 levels, which can range from High, Medium to Low. As quantitative values cannot define such a feeling, this description suffices as the intensity of the emotion.

#### 4.1.4 Sustainability

The product attribute sustainability describes how environmentally friendly a luxury fashion item is, which is also subdivided into 3 levels. The highest level of sustainability is classified as "Very Sustainable", describing products that have little to no negative impact on the environment. Indicating that these products have been produced in a very sustainable way and have almost no negative impact on the environment throughout their entire product life cycle, as they contribute to a circular economy. The second level of the sustainability product attribute is a "Sustainable" luxury product. This is characterized by the fact that it has been produced sustainably and has a very low negative impact on the environment due to water reduction efforts, low Co2 emissions, and no use of toxic chemicals. However, contrary to a very sustainable luxury product, these products can cause a negative impact on the environment by being used and disposed, as they are not part of a Circular Economy. The lowest form of sustainability is, when a product is "not sustainable" by environmental standards and is produced in a conventional, industrial process. The classification of these different sustainability levels was based on the literature review findings in 2.1.3 and the insights into fashion sustainability derived from it.

#### 4.1.5 Price

Financial Luxury Consumers purchase luxury fashion due to the high prices of these products in order to distinguish themselves from other social groups, demonstrating their status and position within society. This customer segment is less interested in the history or craftsmanship of the products but is solely interested in buying them due to the high price point.

For the conjoint analysis, price levels are specified, ranging from 500€, 650€, and 800€ per product. For a correct evaluation of the price leaps afterward, it is important that the distances between the price levels were equal. These prices are based on a self-calculated average price for entry-level luxury fashion based on the current price lists of selected luxury fashion brands (Appendix 3). In addition, a realistic maximum price for luxury fashion was calculated in the same way (Appendix 4). In doing so, it was ensured that the upper price range did not include any extreme luxury prices, as theoretically, there are no price limits in the luxury sector, as a product can always be more exclusive and, therefore, more expensive. The average of the upper and lower prices was then calculated to determine the middle price.

**Table 2:**

*Description Attribute Levels*

| Attribute                 | Attribute Levels                                   | Data Type | Source                              |
|---------------------------|--|-----------|-------------------------------------|
| Brand Prestige            | High Prestige<br>Medium Prestige<br>Low Prestige   | Ordinal   | Vigneron and Johnson (2004)         |
| Quality                   | High Quality<br>Medium Quality<br>Low Quality      | Ordinal   | Wiedmann et al. (2009)              |
| Feeling of Accomplishment | High<br>Medium<br>Low                              | Ordinal   | Vigneron and Johnson (1998)         |
| Sustainability            | Very Sustainable<br>Sustainable<br>Not Sustainable | Ordinal   | Kapferer and Michaut (2015)         |
| Price                     | 800 €<br>650 €<br>500 €                            | Discrete  | Author's own calculation (Appendix) |

*Note.* Author's own illustration

4.2 Online Survey Structure:

The survey was divided into 3 coherent sections, each with its own function and intention.

1) The first section consisted of a filter question to ensure that only current or aspiring luxury fashion consumers participated in the survey and were thus able to answer questions about purchase motivations in the luxury fashion segment meaningfully and truthfully (Appendix 3).

In addition, a 1 to 5 ranking question was used to determine which attributes luxury customers consider the most important when making a luxury purchase (Appendix 4). This enabled the identification and allocation of the respective luxury consumers and their motivations for buying luxury fashion, as described in section 2.2.4.

2) In the second part of the survey, a description of the product attributes and their respective levels was explained at first. Subsequently, the actual choice-based conjoint analysis followed, which consisted of 8 to 14 choice sets that adapted according to the preceding answers of the respective participants (Appendix 5). Each choice set consisted of 3 alternative product options with randomly assigned, varying product attribute levels. In addition, each choice set also offered the option of not choosing any of the shown product options. The adaptive adjustment, the number of displayed choice sets, and the selection of the respective attribute levels was carried out by the online tool Conjoint.ly, which specializes in conjoint analysis.

Based on the 5 product attributes, each with 3 attribute levels, a maximum number of 243 possible combinations would be possible. However, since examining 243 different possibilities for respondents is infeasible, the advantage of a conjoint analysis becomes apparent in this context. Conjoint analysis enables the application of a fractional design by which only a subset of the full set of product profiles is systematically selected without jeopardizing the random composition of the individual attribute levels. This ensures that the values of the attributes are independent of each other, do not intercorrelate, and thus do not influence each other.

3) The last part of the survey consisted of 6 sociodemographic questions related to gender, age, relationship status, highest level of education, employment status, and monthly disposable household income.

#### 4.3 Data Collection:

A pilot version of the conjoint analysis was conducted from April 4th to April 7th to test the evaluability and functionality of the online survey and conjoint analysis. The actual survey was created using the online tool Conjoint.ly and carried out from April 11th to April 21st. The online survey was distributed via social networks such as LinkedIn, WhatsApp, and within the university network. However, as this approach did not generate a representative number of respondents, luxury consumers in Paris were actively identified in front of luxury fashion shops such as Louis Vuitton, Dior, or Galerie Lafayette and invited to participate in the survey. Nevertheless, the participation was still voluntary and without any control or presence of the questioner. Instead, only the link to the online survey was actively distributed to luxury consumers. In order to prevent a selection bias, no consumers were specifically targeted, as the

link was distributed universally within these shops, while the participants self-determined their eligibility as a luxury consumer and their respective sub-division into the different types of luxury consumers.

#### 4.4 Data Analysis:

As already mentioned in the previous paragraph, the survey was conducted using the online tool Conjoint.ly, which specializes in creating and conducting conjoint analyses of all kinds.

This survey collected responses from a total of 480 global participants, of which a large proportion of 247 participants (51,5% of all respondents) only opened the survey without actively participating in it. Consequently, these were excluded from the number of eligible participants. In addition, 73 participants (15,2% of all respondents) answered the filter question with a "no". The filter question assessed whether the participants had already bought luxury fashion in the past or whether they intended to do so in the near future. As a result, these participants were also not taken into account, as they did not correspond to the target audience of luxury fashion consumers. Furthermore, 49 participants (10,2% of all respondents) started the survey without completing it, resulting in these responses also being considered non-suitable. Consequently, 111 responses (23,1% of all respondents) were taken into consideration and were used for the analysis.

According to Saunders et al. (2019), in order for quantitative research to be sufficiently relevant, a base response number of 50 should be achieved, plus an additional 8 responses should be collected for each independent variable. Using the research framework shown in paragraph 3, this research examines 5 independent variables, hence a total number of at least 90 responses must be collected. Although this requirement is met, more responses provide greater significance and representability.

##### 4.4.1 Gender

Among these responses, 78 responses (70,3% of the responses analyzed) were submitted by women, while men provided 33 responses (29,7% of the responses analyzed). In comparison, the global average in terms of male and female distribution amounts to 50.2% men and 49.8% women, respectively. (United Nations, 2022)

#### 4.4.2 Age

In terms of age, the majority, 33 participants, were aged 18 - 24, which accounted for 29,7% of all responses. The second most represented group of participants was between 25 – 34 years old, representing 32 participants, 28,8% of the responses. This was followed by the age group 45 – 54, with 23 responses, accounting for 20,7% of the responses. Following this were 12,6% in the 55 – 64 age group, 7,2% in the 35 – 44 age group, and 1 response (0,9% of the responses analyzed) originating from the age group above 65. There were no responses from people in the age group 18 or younger.

Table 3 visualizes the age distribution amongst all respondents, while also segmenting according to the respondent's gender.

**Table 3:**

*Respondents' Age and Gender Distribution*

| Age     | Female |      | Male |      | Total |      |
|---------|--------|------|------|------|-------|------|
|         | n      | %    | n    | %    | n     | %    |
| <18     | 0      | 0    | 0    | 0    | 0     | 0    |
| 18 - 24 | 20     | 25,6 | 13   | 39,4 | 33    | 29,7 |
| 25 - 34 | 20     | 25,6 | 12   | 36,4 | 32    | 28,8 |
| 35 - 44 | 7      | 9    | 1    | 3    | 8     | 7,2  |
| 45 - 54 | 18     | 23,1 | 5    | 15,2 | 23    | 20,7 |
| 55 - 64 | 12     | 15,4 | 2    | 6,1  | 14    | 12,6 |
| >65     | 1      | 1,3  | 0    | 0    | 1     | 0,9  |
| Total   | 78     | 100  | 33   | 100  | 111   | 100  |

*Note.* Author's own illustration

#### 4.4.3 Marital Status

With respect to marital status, 29,7% of respondents stated that they were single, 33,3% were in a relationship, 35,1% reported that they were married, while 0,9% stated that they were divorced. Further, 0,9% of the respondents did not want to give any information about their marital status and therefore indicated "Prefer not to say". Lastly, no respondent reported their marital status as widowed.

#### 4.4.4 Education Level

The majority, 41,4% of respondents, indicated that they had a Master's degree as their highest completed level of education. The second most frequent indication was a bachelor's degree, which was declared by 33,3% of the respondents. This was followed by 18% of respondents who had a high school diploma as their highest completed level of education. 1,8% of the respondents had a Ph.D. degree, while 2,7% of the respondents stated that their highest level of education was below the high school diploma. Again, participants had the option of not providing any information, which 2,7% of respondents did.

#### 4.4.5 Employment Status

In terms of employment status, the most represented group was full-time employees, which accounted for 36,9% of all participants. This was followed by students, representing 32,4% of all respondents, while self-employed participants accounted for 11,7%. Of all respondents, 10,8% reported that they are currently part-time employed, and 2,7% stated that they have retired. Overall, 1,8% of participants were unemployed, while 3,6% of participants did not want to disclose their current employment status.

#### 4.4.6 Monthly Disposable Income

Responding to the question about the monthly disposable income, the majority of 34,2% stated that they had less than 2000€ at their disposal each month. The second largest group, with 22,5%, stated a monthly disposable income of 2000€ - 4000€. This was followed by 4001€ - 6000€, stated by 9,9%, 7,2% had a monthly disposable income of 6001€ - 8000€ and 6,3% had 8001€ - 10000€ at their disposable per month. Furthermore, 2,7% reported a monthly disposable income between 10001€ - 12000€, while there were no participants who stated a monthly disposable income of 120001€ - 14000€. However, 3,6% of the respondents stated that they had a monthly disposable income which is greater than 14000€. A total of 13,5% did not want to disclose information regarding their monthly disposable income.

#### 4.4.7 Purchase Motivation

Based on the responses concerning the question which criterion or product attribute is most important to the participants in a luxury fashion purchase (Appendix 4), the participants were divided into different luxury consumer segments. The various segments were determined on the basis of their purchase motivation which was then assigned to one of the 4 luxury consumer types, respectively the different segments. Concerning the different purchase motivations and

the associated luxury consumer types, 60,4% of all participants stated that Product Quality is most important to them. Consequently, these 67 participants can be identified as Functional Luxury Consumers. Thereafter, Brand Prestige was the most important product feature for 18% of participants, and therefore these respondents can be considered as Social Luxury Consumers. Feeling of Accomplishment was mentioned as the third most important feature, with 10% of the participants' votes, indicating Individual Luxury Consumers. Social Status and Exclusivity had the fewest votes, reflecting that 5% of participants identify as Financial Luxury Consumers. Sustainability as a product attribute was the most important purchasing driver for luxury fashion among 7% of all participants. Despite the fact that in existing literature, these consumers are not considered as a separate luxury consumer group, within this analysis, they are referred to as Sustainable Luxury Consumers and will subsequently be evaluated as well.

**Table 4:**

*Luxury Segment Distribution*

| Luxury Consumer Segment | Generation Y&Z |       | Older Generations |       | Total |       |
|-------------------------|----------------|-------|-------------------|-------|-------|-------|
|                         | n              | %     | n                 | %     | n     | %     |
| Social                  | 11             | 15,1  | 9                 | 23,7  | 20    | 18,0  |
| Individual              | 7              | 9,6   | 4                 | 10,5  | 11    | 9,9   |
| Functional              | 44             | 60,3  | 23                | 60,5  | 67    | 60,4  |
| Financial               | 4              | 5,5   | 1                 | 2,6   | 5     | 4,5   |
| Sustainable             | 7              | 9,6   | 1                 | 2,6   | 8     | 7,2   |
| Total                   | 73             | 100,0 | 38                | 100,0 | 111   | 100,0 |

*Note.* Author's own illustration

## 5. Results

In order to determine the importance of the individual product attributes and their marginal willingness to pay, Conjoint.ly was used not only for designing the survey but also for conducting a choice-based conjoint analysis. The conjoint analysis utilizes a hierarchical logistic regression in order to obtain the individual preferences scores (part-worth utilities). By recreating real market situations with realistic product choices, conjoint analysis can predict natural and realistic consumer behavior and purchase decisions. In order to assess whether the conducted choice-based conjoint analysis is a realistic representation of consumers' actual decisions and to determine the goodness of fit, the McFadden pseudo-R<sup>2</sup> was calculated. A high goodness of fit (McFadden pseudo-R<sup>2</sup>) means that the analysis accurately describes and represents the responses of the participants. According to Conjoint.ly, McFadden's pseudo-R<sup>2</sup> in this survey measures 64.8% and is therefore at the upper end of the medium fit, representing a medium good explainability of the analyzed answers. According to Conjoint.ly (2019), McFadden's pseudo R<sup>2</sup> can be classified into a strong fit (values above 65%), medium fit (values between 45% and 65%), and weak fit (values lower than 45%). Other academic findings are less restrictive, as according to Hemmert et al. (2018), McFadden defines values between 0.2 and 0.4 as a good fit and values above 0.4 as an excellent fit. However, regardless of the source, it can be concluded that the conducted analysis has a reasonably fit and thus predicts the analyzed outcomes well.

Furthermore, in order to test the statistical significance of the variation and differences among the various identified customer segments, as well as the influence of the customers' age, a two-way ANOVA test was conducted. For this, the relevant assumptions, more precisely, the independence of observations, the homogeneity of variance, and the normal distribution of the dependent variable, have to be tested first. The independence of the variables cannot be analyzed for categorical variables. However, for conducting the ANOVA test, only individual data were used without groupings, which reduces dependencies among the variables. Regarding the homogeneity of variance, Leven's Test of Equality of Error Variances was performed. For this test, the null hypothesis could not be rejected ( $p\text{-value} > 0.05$ ), which means that the independent variables have similar variances, and thus homoscedasticity is present. Last, regarding the normal distribution, the Shapiro-Wilk test showed no significant values for all independent variables ( $p\text{-value} > 0.05$ ). This indicates that the null hypothesis of the Shapiro-Wilk test is rejected and thus implies that the dependent variable is distributed normally among

every combination of independent variables. As a consequence, all statistical assumptions for the two-way ANOVA test are fulfilled, which could subsequently be carried out.

By conducting the two-way ANOVA, no statistically significant difference ( $p\text{-value} > 0.1$ ) was detected between the respective segments and their willingness to pay for sustainable fashion. On the other hand, the effect of age showed a significant impact ( $p\text{-value} = 0.016$ ) on the willingness to pay for sustainability among luxury consumers. Yet, not only age is statistically relevant, but also the different age groups within the respective segments are statistically relevant ( $p\text{-value} = 0.026$ ).

In order to calculate the part-worth utility scores of the individual attributes, the preference scores of each respondent for each attribute, as calculated by Conjoint.ly, are required (Appendix 6). Using these, the range of possible preference scores within the attribute is calculated separately for each respondent. Based on this, each attribute's importance ratio (in %) can be calculated for each unique respondent. These calculated individual attribute important ratios can then be computed as average values for the respective segments or the total average, respectively. These values then represent the part-worths of the attributes, also referred to as relative attribute importance.

By calculating the relative attribute importance for the average of all luxury consumers, as well as for each individual luxury segments, the following results can be obtained:

**Table 5:**  
*Overview Relative Attribute Importance*

| Attributes                | Social Consumer | Individual Consumer | Functional Consumer | Financial Consumer | Sustainable Consumer | Average Consumer |
|---------------------------|-----------------|---------------------|---------------------|--------------------|----------------------|------------------|
| Brand Prestige            | 16,2            | 12,4                | 11,2                | 16,9               | 13,1                 | 12,6             |
| Quality                   | 38,0            | 38,7                | 39,4                | 27,7               | 41,3                 | 38,7             |
| Feeling of Accomplishment | 10,2            | 15,9                | 11,6                | 13,0               | 8,3                  | 11,6             |
| Sustainability            | 22,2            | 20,7                | 24,2                | 23,3               | 24,4                 | 23,5             |
| Price                     | 13,4            | 12,3                | 13,6                | 19,0               | 12,9                 | 13,6             |

*Note.* Author’s own illustration

The evaluation of the conjoint analysis (Table 5) indicates that for the average luxury fashion consumer (average consumer) product quality is the most important factor in the purchase decision, with a relative attribute importance of 38.7%. The second most important purchase decision factor is sustainability, with 23.5% of the average relative importance. This is followed

by Price, which has an average relative importance of 13.6% among all product attributes. This is followed by Brand Prestige, which is the fourth most important luxury product attribute, with 12.6% of the average relative importance. The least important product attribute for the purchase decision is the Feeling of Accomplishment, which has an average relative attribute importance of 11.6%. The relative attribute importance always accumulates to 100% and reflects how important the respective product attribute is in relation to all other product attributes. In addition, as no segmentation into the respective luxury consumer types has been carried out so far, these figures only describe the average among all luxury consumers. This is also referred to as the average relative importance of attributes (across consumers).

Sustainability as a luxury product attribute received an average relative importance of 23.5% among all luxury consumers and is thus the second most important product attribute in their purchasing decisions. Thereby it is possible to confirm hypothesis 5, which assumes that sustainability is within the 3 most important product attributes for all luxury consumers.

### 5.1 Relative Attribute Importance

Based on the consumer segments identified in 4.4.7, which were determined by self-selection in question 3, the relative attribute importance of the respective luxury consumer segments can be calculated (Table 5).

#### Segment 1: Social Luxury Consumers (20 responses)

Like the average of all luxury consumers surveyed, this segment (18% of the total sample) is most motivated by the high quality of luxury fashion items, which has a relative attribute importance of 38%. This is followed by product sustainability, which is the second strongest motivation for luxury consumption, with a relative attribute importance of 22.2%. However, the relative attribute importance for both quality and sustainability is slightly below the average for all luxury consumers. In contrast, the relative attribute importance for brand prestige is significantly stronger among social luxury consumers at 16.2% (3.6% stronger) than the average of all luxury consumers. This is followed by the relative attribute importance for Price with 13.4% and Feeling of Accomplishment with 10.2%.

#### Segment 2: Individual Luxury Consumers (11 consumers)

This luxury consumer segment (10% of the total sample) likewise has the highest motivation for purchasing luxury fashion due to the high quality that these products promise. The relative attribute importance for quality among Individual luxury consumers is 38.7%. The second most

important product attribute for this luxury consumer segment is also the sustainability of the products. However, of all luxury consumer segments, this segment has the lowest relative attribute importance for sustainability, at 20.7%. This shows that of all segments, Individual luxury consumers see the least value in sustainability and therefore have the lowest tendency towards sustainability among all segments (2.8% points below the average of all luxury segments). The third most important product attribute for Individual Luxury Consumers is the Feeling of Accomplishment, with a relative attribute importance of 15.9%. This is also the highest value for Feeling of Accomplishment among all luxury segments and lies 4.3% points above the average of all luxury consumer segments. The feeling of Accomplishment is followed by the product attribute Brand Prestige, which has a relative attribute importance of 12.4%. The relative attribute importance for the price has the lowest value of all luxury segments at 12.3%, which is 1.3% below the average.

### Segment 3: Functional Luxury Consumers (67 responses)

The by far largest luxury consumer segment are the functional luxury consumers (60% of the total sample), who are strongly driven by high product quality, which attains a relative attribute importance of 39.4%. The high importance of quality for this segment is particularly reasonable, as Functional luxury consumers already stand out in existing literature due to their strong focus on quality. The product attribute of quality is followed by product sustainability, which is likewise above average for this segment with 24.2%. This can also be explained by the Functional luxury consumer's focus on quality, as the sustainability of a product can have a positive influence on the quality of the product, especially in terms of durability, timelessness, and recyclability. The third most important product attribute for this segment is price, which has a relative attribute importance of 13.6% and thus exactly matches the average of all luxury consumers. This is followed by the luxury product attribute of Feeling of Accomplishment, which has a relative attribute importance of 11.6%. The least important product attribute for this luxury consumer segment is Brand Prestige. With a relative attribute importance of 11.2%, this product attribute is 1.4% below the average of all luxury segments, which is also the lowest value of all luxury segments. However, this rating is reasonable, as Functional Luxury consumers place more emphasis on the actual quality, workmanship, and production methods of the product and less on the brand, social reputation, and marketing (Hennigs et al. (2012).

#### Segment 4: Financial Luxury Consumers (5 responses)

Like all other segments, the smallest luxury consumer segment, Financial Consumers (5% of the total sample), has the highest relative attribute importance for the luxury product's quality. For the Financial luxury consumer segment, this amounts to 27.7%, which is, however, the lowest relative attribute importance of all luxury segments and 11% points below the average. This can be explained by the fact that financial luxury consumers are more interested in the overall luxury concept with high prices but less in the details of the actual product processing or its manufacturing process. The second most important product attribute for this luxury segment is also the sustainability of the product, which has a relative attribute importance of 23.3%. This is followed by the product attribute of price, which has a relative attribute importance of 19%. This score is 5.4 points higher than the average for all luxury segments, highlighting the significance of price in this particular luxury category. The fact that this segment has the highest relative attribute importance for price among all segments can be explained by the fact that this segment consumes luxury because of the high, exclusive price. It is therefore not surprising that this segment also places the highest value on price, as this is precisely what defines this segment. After price the product attribute of brand prestige follows, which at 16.9% also achieves the highest score for brand prestige among all luxury segments. Indeed, this relative attribute importance is 4.3% higher than the average of all luxury consumers. Thus, this luxury segment primarily enjoys the reputation and exclusivity of luxury, which they receive through the high prestige of luxury goods. The last product attribute is the feeling of accomplishment, which has a relative attribute importance of 13% for this luxury segment, which is likewise an above-average value.

#### Segment 5: Sustainable Luxury Consumers (8 responses)

This segment accounts for about 7% of the total sample and achieves the highest value for product quality of all luxury segments, with a relative attribute importance of 41.3%. As such, this segment ranks 2.6% above the average luxury consumer, which can be explained by the fact that high product quality often correlates with a longer product lifetime, making the product significantly more sustainable. This is also reflected in the second highest relative attribute importance of this luxury segment, which is product sustainability. Here, Sustainable Luxury Consumer achieves a value of 24.4%, which is again the highest value for sustainability of all luxury segments. However, this high value is consistent with the expectation that consumers who buy luxury products, because of their higher sustainability, value this product attribute above average. Product sustainability is followed by the product attribute of brand prestige,

which achieves a relative attribute importance of 13.1%. It is followed by the product attribute of price, which achieves a relative attribute importance of 12.9% and is thus slightly below the average (0.7% below the average luxury segment). The least important product attribute for this luxury segment is the feeling of accomplishment, which achieves a value of 8.3%. While this is 3.3% below the average of all luxury segments, it represents the lowest score of all segments. This suggests that these consumers choose luxury products not because they want to experience pleasure. This can be linked to the notion of responsibility, as these consumers think less individually, as environmental issues do not involve isolated topics but rather systematic solutions. This also explains why sustainability consumers are willing to pay a higher price for environmentally friendly products. (even though the higher price harms them personally), because they are part of the system that universally creates a better standard of living as a whole (Song & Kim, 2019).

## 5.2 Willingness to pay

For evaluating the marginal willingness to pay, it is important to consider which attribute level is taken as the baseline for the evaluation. The baseline is used to calculate whether the respective attribute levels above or below have a higher or lower value for the respective customer and therefore determine a higher or lower willingness to pay. In this evaluation, all attributes have ascending preferences along with the attribute level, which is constant throughout all product attributes and luxury consumer segments. This is illustrated in the evaluation of the Average Level Preference in Appendix 6. It can therefore be concluded that a higher attribute level also has a higher preference and, thus, a higher willingness to pay by the luxury customer. In order to facilitate and simplify the interpretation, the lowest levels for all product attributes have been selected as the baseline for the analysis. Furthermore, it is important to note that the marginal willingness to pay is an indicative value, which only shows how much the median consumer is willing to pay more for an increase in the attribute level within the corresponding product attribute. This also equals the price of the product, which, if the product level remains the same, should be reduced by the respective marginal amount in order to be as appealing as a product with a higher attribute level. However, this does not imply that every individual consumer would value the product attribute by this amount, as it represents the average of luxury consumers. It should also be noted that the marginal willingness to pay for the respective product attributes cannot be added up to determine a final product price, as other non-product-related factors might also influence the price of a product. Finally, if the marginal willingness to pay for a product attribute exceeds the total price of the product, this

implies that customers tend to value this product attribute higher than any reasonable amount in price change (Bala et al., 1999).

The relative attribute importance directly affects the willingness to pay, as customers are willing to spend more money on a product attribute or the whole product if they value it more (which is identified by the relative attribute importance).

Therefore, it is not surprising that the average luxury consumer has the highest marginal willingness to pay for the product attribute of quality. The median Average Luxury Consumer values an increase from Low Quality (baseline) to Medium Quality with a marginal willingness to pay of 634.82€. This means that the increase in quality, from good, industrially manufactured products to fine, good craftsmanship products, is worth 634.82€ to the median luxury consumer. Alternatively, they value this increase in quality just as much as a decrease in product price of 634.82€. In terms of high quality, customers have a marginal willingness to pay of 876.36€ based on the baseline. This represents the increase in quality from a good, industrially manufactured product to a product with rare, fine materials, which are made with the highest craftsmanship. Conversely, for the median of the average luxury consumer, an increase from a medium-quality to a high-quality product is worth an additional €241.54. This indicates that the increase from industrial products to handmade products with fine materials is worth significantly more than the further jump to higher craftsmanship with the addition of rare materials. Nevertheless, this means that the median average luxury consumer values higher craftsmanship and the use of rarer and finer materials and is willing to pay a significant price for them.

Similar to the relative attribute importance, the average luxury consumer also has the second highest willingness to pay for the product attribute of sustainability. The median of average luxury consumers value an upgrade from a non-sustainable luxury product (baseline) to a sustainable product with a willingness to pay of 448.88€. This means that the sustainable production of the products, with fewer Co2 emissions, water consumption, and without harmful chemicals, is worth an additional 448.88€ compared to a conventionally produced product, which does not pay attention to sustainable production. Furthermore, the median of the average luxury consumers values an increase from not sustainable to very sustainable as much as they value a decrease in price of 477€ in the not sustainable product. The result is that these customers value both the sustainable production of the product and its sustainability over the entire product lifecycle (circular economy). However, the increase from the medium attribute

level (sustainable) to the highest attribute level (very sustainable) is significantly lower than the increase from the lowest attribute level (not sustainable) to the medium attribute level. The result is that the median of the average luxury consumer values the sustainable production of the products significantly more than their sustainability over the entire product life cycle, as the increase in the latter only has a marginal willingness to pay of 28.12€.

Following quality and sustainability, the product's price is the third most important relative attribute for the average luxury consumer. However, for the conjoint analysis, the willingness to pay is calculated based on the price of the respective attribute packages; thus no willingness to pay is calculated for the price. After all, it is not reasonable to calculate a willingness to pay for the price since a price increase should be of exactly the same value to customers as the increase in marginal willingness to pay. This means that they would value an increase in price as much as a decrease in the price of the baseline, which would nullify each other. Therefore, the third aspect to be analysed is the marginal willingness to pay for the brand prestige of the luxury product.

The median of the average luxury consumers values the increase from low prestige to medium prestige with a marginal willingness to pay of 217.61€. Hence, they measure the increase from an expensive, accessible brand to a very luxurious brand with this value. Respectively, a low-prestige brand has to decrease in price by this amount in order to be equally valued by the average luxury consumer. The increase from low prestige (expensive but accessible) to high prestige (very exclusive pure luxury) achieves a marginal willingness to pay of €251.27 among the median of average luxury consumers. Consequently, the transition from low prestige to a luxurious brand is worth significantly more to the median of average luxury consumers than the transition from luxurious to pure luxury with more exclusivity. The latter step is only worth an additional €33.66 to the average luxury consumer.

The average luxury consumer has the lowest willingness to pay for the feeling of accomplishment generated by the purchase of a luxury product. The increase from a low feeling of accomplishment to a medium feeling of accomplishment is valued at 143.15€ by the median of average luxury consumers. In contrast, the increase from a low feeling of accomplishment to a high feeling yields a marginal willingness to pay of €227.95. This indicates that the first increase in the Feeling of Accomplishment is worth significantly more to the median of average luxury consumers than the subsequent increase in the feeling of accomplishment. Indeed, the second increase from medium to high achieves a smaller marginal willingness to pay of 84.8€.

In order to investigate the hypotheses, the luxury consumers were classified according to the segments described in 4.4.7. According to this segmentation, the willingness to pay was analyzed on the basis of the segment-specific part-worth utilities (Table 6).

**Table 6:**

*Willingness to Pay: Luxury Segment Values*

| Attribute Levels                 | Average  |  | Social   |              | Individual |              | Functional |              | Financial |              | Sustainable |              |
|----------------------------------|----------|--|----------|--------------|------------|--------------|------------|--------------|-----------|--------------|-------------|--------------|
|                                  | <i>M</i> |  | <i>M</i> | <i>Diff.</i> | <i>M</i>   | <i>Diff.</i> | <i>M</i>   | <i>Diff.</i> | <i>M</i>  | <i>Diff.</i> | <i>M</i>    | <i>Diff.</i> |
| High Brand Prestige              | 251,27 € |  | 352,93 € | 101,66 €     | 238,21 €   | -13,06 €     | 227,37 €   | -23,90 €     | 257,36 €  | 6,09 €       | 338,04 €    | 86,77 €      |
| Medium Brand Prestige            | 217,61 € |  | 312,77 € | 95,16 €      | 246,19 €   | 28,58 €      | 188,87 €   | -28,74 €     | 257,59 €  | 39,98 €      | 237,34 €    | 19,73 €      |
| High Quality                     | 876,36 € |  | 967,46 € | 91,10 €      | 793,36 €   | -83,00 €     | 873,30 €   | -3,06 €      | 580,62 €  | -295,74 €    | 1.010,00 €  | 133,64 €     |
| Medium Quality                   | 634,82 € |  | 632,08 € | -2,74 €      | 647,70 €   | 12,88 €      | 634,82 €   | 0,00 €       | 421,48 €  | -213,34 €    | 827,73 €    | 192,91 €     |
| High Feeling of Accomplishment   | 227,95 € |  | 232,57 € | 4,62 €       | 332,01 €   | 104,06 €     | 211,59 €   | -16,36 €     | 217,30 €  | -10,65 €     | 303,94 €    | 75,99 €      |
| Medium Feeling of Accomplishment | 143,15 € |  | 137,56 € | -5,59 €      | 257,57 €   | 114,42 €     | 121,62 €   | -21,53 €     | 101,33 €  | -41,82 €     | 137,32 €    | -5,83 €      |
| Very Sustainable                 | 477,00 € |  | 339,71 € | -137,29 €    | 423,72 €   | -53,28 €     | 550,56 €   | 73,56 €      | 298,93 €  | -178,07 €    | 606,23 €    | 129,23 €     |
| Sustainable                      | 448,88 € |  | 368,69 € | -80,19 €     | 388,51 €   | -60,37 €     | 465,71 €   | 16,83 €      | 307,84 €  | -141,04 €    | 514,19 €    | 65,31 €      |

*Note.* “*M*” represents the average value (mean) for each segment

“*Diff.*” represents the monetary difference between the segment average to the average luxury consumer

### Social Luxury Consumers

The median social luxury consumer values an increase from not sustainable to sustainable as much as they value a price drop of a not sustainable product by 368,69€. Moreover, the median social luxury consumer has a willingness to pay for the increase from not sustainable to very sustainable of 339.71€. Consequently, the increase from a sustainable luxury product to very sustainable product results in a decrease in the median social luxury consumer's valuation of this product by €28.98. Therefore, in theory, a luxury fashion product that is very sustainable would have to be offered at a price of 28.98€ less than the sustainable luxury fashion product in order to be equally attractive to the median social luxury consumer. As a result, this customer segment appreciates sustainability, but only as long as the production of the products is sustainable. For sustainability over the entire product life cycle (very sustainable), the willingness to pay is smaller, as this degree of sustainability is not valued by the customer segment, and therefore, they are not willing to pay a higher price for it.

In comparison to the average of all luxury consumers, the social luxury consumer segment has a lower willingness to pay for sustainable luxury fashion, of 80.19€. The willingness to pay for

very sustainable luxury products for this segment is, in fact, 137.29€ below the willingness to pay by the average of all luxury consumers.

This validates hypothesis 1, as social luxury consumers have a lower willingness to pay for both sustainability levels compared to the average luxury consumer.

#### Individual Luxury Consumer

In comparison to a non-sustainable luxury product, the median individual luxury consumer has a marginal willingness to pay for sustainable luxury, amounting to 388.51€. Furthermore, the median individual luxury consumer's marginal willingness to pay for very sustainable luxury is €423.72. Relative to the average luxury consumer, the individual luxury consumer segment has a lower willingness to pay for sustainable luxury fashion by €60.37. With regard to very sustainable luxury fashion, the willingness to pay of this segment is 53.28€ below the willingness to pay of the average luxury consumer.

Hence, hypothesis 2 cannot be validated, as individual luxury consumers do not have a higher willingness to pay for sustainability than the average luxury consumer.

#### Functional Luxury Consumer

An increase from a not sustainable luxury fashion product to a sustainable fashion product, results in a willingness to pay of 465,71€, for the median functional luxury consumer. Hence, the marginal willingness to pay is 16.83€ larger than the average luxury consumer's willingness to pay for sustainable luxury fashion. In relation to the increase from not sustainable to very sustainable, the median of the functional luxury consumer segment has a marginal willingness to pay of 550.56€. This value is 73.56€ greater than the average luxury consumer's willingness to pay for very sustainable luxury fashion.

This confirms hypothesis 3, as the functional luxury consumer segment has a higher willingness to pay for both sustainability levels in comparison to the average luxury consumer.

#### Financial Luxury Consumer

The marginal willingness to pay for an increase from a not sustainable to a sustainable luxury fashion product amounts to 307.84€ for the median financial luxury consumer. The increase from a not sustainable luxury product to a very sustainable luxury product yields a marginal willingness to pay of 298.93€ for the median financial luxury consumer. As with the social luxury consumers, a similar phenomenon can be observed here, as the financial luxury consumers are also willing to pay for sustainability, however, they value sustainable production

more than sustainability over the entire product life cycle. A very sustainable luxury product (sustainable production and circular economy), in theory, is worth €8.91 less to the median financial luxury segment than a product that is sustainable (sustainable production).

The financial luxury consumer's willingness to pay is below the average luxury consumer's willingness to pay for both sustainable and very sustainable luxury products. Compared to the average luxury consumer, this segment's willingness to pay for sustainable luxury products is €141.04 smaller, while for very sustainable luxury products, the willingness to pay is €178.07 below the average.

Consequently, hypothesis 4 can be validated as the financial luxury segment has a lower willingness to pay than the average luxury consumer for both sustainability levels.

#### Sustainable Luxury Consumer

For consumers who buy luxury goods due to the higher sustainability aspect, the marginal willingness to pay for an increase from a non-sustainable luxury product to a sustainable luxury product amounts to 514.19€. The increase from a not sustainable luxury fashion item to a product that is very sustainable, results in a marginal willingness to pay of sustainable luxury consumers by 606.23€. Therefore, although consumers value very sustainable luxury products more than sustainable luxury products, the increase from the baseline to a sustainable luxury product is significantly larger than the increase from an already sustainable product to a very sustainable product (92.04€). Compared to the average luxury consumer segment, the sustainable luxury consumer has the highest willingness to pay for sustainability. For sustainable luxury products, the willingness to pay is 65.31€ above the average, and for very sustainable products, the willingness to pay is 129.23€ above the average of all luxury consumers.

**Table 7:***Willingness to Pay: Age Comparison per Luxury Segment*

| Consumer Segments | Brand Prestige     |          | Quality  |            | Feeling of Accomplishment |          | Sustainability   |             |          |
|-------------------|--------------------|----------|----------|------------|---------------------------|----------|------------------|-------------|----------|
|                   | High               | Medium   | High     | Medium     | High                      | Medium   | Very Sustainable | Sustainable |          |
|                   | <i>Average</i>     | 352,93 € | 312,77 € | 967,46 €   | 632,08 €                  | 232,57 € | 137,56 €         | 339,71 €    | 368,69 € |
| Social            | <i>Gen Y&amp;Z</i> | 354,96 € | 248,49 € | 707,36 €   | 537,47 €                  | 181,15 € | 99,93 €          | 510,02 €    | 387,28 € |
|                   | <i>Diff.</i>       | 2,03 €   | -64,28 € | -260,10 €  | -94,61 €                  | -51,42 € | -37,63 €         | 170,31 €    | 18,59 €  |
|                   | <i>Average</i>     | 238,21 € | 246,19 € | 793,36 €   | 647,70 €                  | 332,01 € | 257,57 €         | 423,72 €    | 388,51 € |
| Individual        | <i>Gen Y&amp;Z</i> | 169,02 € | 234,70 € | 695,68 €   | 602,03 €                  | 321,76 € | 188,26 €         | 423,72 €    | 388,51 € |
|                   | <i>Diff.</i>       | -69,19 € | -11,49 € | -97,68 €   | -45,67 €                  | -10,25 € | -69,31 €         | 0,00 €      | 0,00 €   |
|                   | <i>Average</i>     | 227,37 € | 188,87 € | 873,30 €   | 634,82 €                  | 211,59 € | 121,62 €         | 550,56 €    | 465,71 € |
| Functional        | <i>Gen Y&amp;Z</i> | 239,41 € | 165,17 € | 846,29 €   | 626,50 €                  | 212,83 € | 121,29 €         | 429,59 €    | 409,25 € |
|                   | <i>Diff.</i>       | 12,04 €  | -23,70 € | -27,01 €   | -8,32 €                   | 1,24 €   | -0,33 €          | -120,97 €   | -56,46 € |
|                   | <i>Average</i>     | 257,36 € | 257,59 € | 580,62 €   | 421,48 €                  | 217,30 € | 101,33 €         | 298,93 €    | 307,84 € |
| Financial         | <i>Gen Y&amp;Z</i> | 402,18 € | 227,49 € | 255,51 €   | 213,83 €                  | 261,09 € | 97,35 €          | 215,60 €    | 274,55 € |
|                   | <i>Diff.</i>       | 144,82 € | -30,10 € | -325,11 €  | -207,65 €                 | 43,79 €  | -3,98 €          | -83,33 €    | -33,29 € |
|                   | <i>Average</i>     | 338,04 € | 237,34 € | 1.010,00 € | 827,73 €                  | 303,94 € | 137,32 €         | 606,23 €    | 514,19 € |
| Sustainable       | <i>Gen Y&amp;Z</i> | 337,61 € | 227,20 € | 944,88 €   | 792,75 €                  | 230,42 € | 102,54 €         | 477,00 €    | 500,92 € |
|                   | <i>Diff.</i>       | -0,43 €  | -10,14 € | -65,12 €   | -34,98 €                  | -73,52 € | -34,78 €         | -129,23 €   | -13,27 € |

*Note.* “Average” describes the willingness to pay for the individual Attribute levels by the average of the respective luxury segment.

“Gen Y&Z” describes the values of the younger consumer groups from the respective segment.

“Diff.” describes the monetary difference between the younger consumers and the segment's average

In order to examine the effect age has on the willingness to pay for sustainable luxury fashion, the following section subdivides the previously described luxury consumer segments into separate age groups. Since hypothesis 6 examines the effect of Generation Y and Generation Z in particular, the already existing segments were subdivided into two additional groups. Given that there is no clear definition of the different generation time spans, nor are the cutoff points clearly defined, this work is based on the definition by Michael Dimock (2019). He defines Generation Y as people born between 1981 and 1996, whilst Generation Z defines people born between 1997 and 2012. This research, therefore, concerns the age groups below 18, 18 - 24, 25 – 34, and 35 - 44. Consequently, all other age groups are not part of Gen Y&Z and are therefore examined as the opposing generational group. For the subdivision of GenY&Z, the part-worth utility scores and the individual attributes' marginal willingness to pay were re-calculated within the respective luxury consumer segments. As a result, the median

values of the respective age groups within the corresponding luxury segments are comparable with one another.

For the Social luxury segment, the willingness to pay for a sustainable luxury product among GenY&Z is €387.28, exceeding the willingness to pay of older social luxury consumers by €18.59. For a very sustainable luxury item, the willingness to pay of the younger generation amounts to 510.02€, 170.31€ above the willingness to pay of the average consumer in this segment. This clearly indicates that the Generation Y&Z has a much higher preference for sustainability in the Social luxury segment, particularly as they value very sustainable products significantly more than older generations. Contrary to this, the average social consumer had a lower willingness to pay for very high sustainability than for sustainable products. This suggests that younger luxury consumers in the social segment are not only willing to pay more for sustainability, but are also knowledgeable about the topic as they understand and value the concept of product lifecycle sustainability.

Individual luxury consumers belonging to Generation Y&Z do not differ in their willingness to pay for sustainable or very sustainable luxury products compared to the average individual luxury consumer.

Compared to the average functional luxury consumer, younger functional luxury consumers have a lower marginal willingness to pay for sustainable luxury as well as for very sustainable luxury fashion items. For sustainable products, the willingness to pay of younger luxury consumers amounts to 409.25€, which is 56.46€ below the average Functional luxury consumer's willingness to pay. For very sustainable luxury products, the difference in willingness to pay lies at 120.97€, which the median of the average Functional luxury consumer is willing to pay more for this attribute level, compared to the younger consumer group.

For financial luxury consumers, the calculation of the willingness to pay for sustainability reveals that Generation Y&Z consumers, in contrast to the average financial luxury consumer, have a lower willingness to pay. For sustainable luxury fashion products, the marginal willingness to pay of the younger financial luxury consumers amounts to 274.55€, which is 33.29€ below the average of the financial luxury consumer segment. Furthermore, the marginal willingness to pay for very sustainable luxury fashion products for the younger financial luxury consumers amounts to 215.60€, which is 83.33€ below the marginal willingness to pay of the

average of the financial luxury consumer segment. Interestingly, both the younger consumers and the average of the segment have a lower willingness to pay for very sustainable product attributes than for sustainable product attributes, which indicates that this segment values a normal sustainability of the product more than a very sustainable product and would not be willing to pay a higher amount for higher sustainability.

The last segment to be examined is the sustainable luxury consumer segment, for which the younger consumer group has a marginal willingness to pay of €500.92 for sustainable product attributes and a marginal willingness to pay of €477.00 for very sustainable luxury products. Accordingly, the values of the younger sustainable luxury consumers are lower than the willingness to pay of the average sustainable luxury consumer, precisely €13.27 for sustainable product attributes and €129.23 for very sustainable product attributes. Once again, younger consumers have a lower marginal willingness to pay for very sustainable product features than for sustainable product attributes. Initially, this seems surprising given the fact that the self-selected luxury consumers stated that sustainability is most important to them in a luxury product. However, one explanation for this could be that younger consumers are particularly affected by a social desirability bias (Roxas & Lindsay, 2012), as the topic of sustainability is significantly more represented in younger generations. As a result, these consumers choose sustainability in the selection question, whereby the actual, subconsciously determined willingness to pay shows that these younger consumers in the sustainability segment are not willing to pay more for these product features.

In general, it can be concluded that the analysis based on age groups, in particular Generation Y&Z, shows that the younger generation, on average, does not have a higher willingness to pay for sustainability in luxury fashion products. In fact, only one (Social) of the five segments showed a higher willingness to pay for sustainability as a product feature among the younger generations. In three of the luxury segments (Functional, Financial, Sustainable), the younger generations had a lower willingness to pay for sustainability as a product feature. In one segment (Individual), no difference in the willingness to pay for sustainability as a product feature of a luxury fashion item could be detected between the older and younger generations. Neither could this be confirmed based on the number of consumers, as the younger consumers of the Social Luxury segment (who had a positive willingness to pay) only made up 15% of all Generation Y&Z luxury consumers and therefore do not represent a majority.

Thus, hypothesis 5 cannot be validated, as, compared to the average luxury consumer, the majority of Generation Y&Z luxury consumers did not have a higher willingness to pay for sustainability as a product attribute.

Based on the assessed data, the conclusions to the hypothesis can be summarized as follows:

**Table 8:**

*Hypothesis Result Overview*

| Variable                                     | Hypothesis | Result        | Stat. Significance |
|--|------------|---------------|--------------------|
| Social Luxury Consumers                      | H1         | Supported     | Not significant    |
| Individual Luxury Consumers                  | H2         | Not Supported | Not significant    |
| Functional Luxury Consumers                  | H3         | Supported     | Not significant    |
| Financial Luxury Consumers                   | H4         | Supported     | Not significant    |
| Relative Attribute Importance Sustainability | H5         | Supported     | -                  |
| Generation Y&Z                               | H6         | Not Supported | Significant *      |

*Note.* \* Significant at a 5% level

## 6. Theoretical Discussion

This research investigated the luxury consumer's willingness to pay for sustainability as a product attribute in luxury fashion with a direct influence of luxury consumers' purchase motivations and the moderating effect of age. Previous research showed inconclusive findings and could not safely determine whether luxury and sustainability are complementary to each other. Consequently, no generalization could be made on the subject of willingness to pay for sustainability among luxury consumers in the fashion sector. On the other hand, it was assumed that different luxury consumer segments perceive and value sustainability differently.

To a certain extent, this can be confirmed, as the different luxury consumer segments had a different willingness to pay for sustainability and also varied noticeably in other product attributes. However, from the survey, it became clear that the ranking of the relative attribute importance for the individual luxury consumer segments was pretty similar, with only marginal differences (Table 5). Thus, for all luxury consumers in this survey, regardless of their respective segment, quality was the most important product attribute, followed by the sustainability of the product. Thereafter, distinguishable segments could be identified, which could be explained by the respective purchase motivations of the respective luxury consumer segments. Social luxury consumers, who buy luxury because of social recognition, had brand prestige as the third most important product attribute, whereas for individual luxury consumers, the third most important product attribute was the feeling of accomplishment, and for financial luxury consumers, it was naturally the price. These logical and explainable differences in Attribute Importance highlight the distinctions between the respective consumer segments and confirm previous research suggesting that there is not just one standard luxury consumer but that the division into Social, Individual, Functional, and Financial consumers, in particular, serves a useful purpose. However, it can also be generalized that for all luxury consumers, it is evident that quality and sustainability of products (which are interrelated) are the most important attributes before differences in the respective attribute importance of each segment become apparent. Consequently, no statistically relevant differences can be observed in the respective consumer segments, as all luxury customer segments agree on the importance of quality and sustainability. Only afterwards, differences occur, which, however, are not large enough to have any statistical influence.

Thus, hypothesis 5 can be confirmed, as the average of all luxury consumers, as well as each individual luxury segment, considers sustainability to be the second most important product attribute.

Even if there is a great deal of agreement on the attitudes among the various luxury consumers, the aforementioned example (ranking of the 3rd highest relative attribute importance) has shown that there are certainly explainable and logically meaningful differences between the luxury segments, which have previously been identified in existing literature (Wiedmann et al., 2009).

Thus, it is also reasonable to compare the particular segments and their willingness to pay in comparison to the average luxury consumer, in order to identify the distinctions and peculiarities of the respective segments.

#### Hypothesis 1 – Social Luxury Consumer

As demonstrated in 5.2, the average social luxury consumer has a lower willingness to pay for sustainability as a product attribute than the average luxury consumer. Furthermore, the analysis of the social luxury segment indicated that younger consumers within this segment have a higher willingness to pay for sustainability than the average social luxury consumer. This suggests that especially the older generation of this segment has a significantly lower willingness to pay for sustainability. This could be attributed to the fact that in older generations, sustainability tends to have a negative or rather alternative connotation, which is not associated with luxury. Especially social luxury consumers, for whom social reputation and prestige are crucial, do not want to be associated with a negative notion of alternativism and ecology. For younger generations, sustainability as a whole may be more relevant and much more respected within their social environment as a result of social movements (Fridays for Future, etc.). This might indicate that for younger consumers, sustainability is not considered to be incompatible with luxury, as it might contribute to their own social reputation. Thus these younger social luxury consumers are willing to pay a higher price for sustainability than the average social luxury consumer. Therefore, hypothesis 1 can be validated as social luxury consumers, as expected, have a lower willingness to pay for sustainability than the average luxury consumer. Although the data of Generation Y&Z indicate that this might change in the future as sustainability is becoming increasingly important in our society and unethical behavior, especially in the fashion industry, is no longer tolerated or even frowned upon.

#### Hypothesis 2 – Individual Luxury Consumer

As already analyzed in 5.2, individual luxury consumers, in contrast to average luxury consumers, do not have a higher willingness to pay for sustainability as a product attribute.

Consequently, hypothesis 2 cannot be validated and is therefore rejected. In fact, among all the luxury consumer segments studied, this segment has the lowest relative attribute importance for sustainability. One explanation for this could be that for this luxury consumer segment, the Feeling of Accomplishment strongly predominates, being the main purchase factor of this segment. After all, both the relative attribute importance and the willingness to pay for the product attribute of the Feeling of Accomplishment have by far the highest values in this segment compared to all other luxury segments. This partly explains the below-average values of Sustainability. The hypothesis was based on the assumption that post-purchase guilt, as described by Ki et al. (2017), can positively influence the willingness to pay for sustainability. However, this research shows that if the feeling of accomplishment for this luxury segment is strong, this seems to prevent or minimize (mitigate) the post-purchase guilt, which also does not create a desire for more sustainable products in this luxury segment.

#### Hypothesis 3 – Functional Luxury Consumer

Based on the analyzed data concerning the willingness to pay and the relative attribute importance of sustainability in the functional luxury consumer segment, hypothesis 3 can also be affirmed. Hence, the assumption is confirmed that consumers who value luxury products due to the higher quality of these products also value the environmental sustainability of these products and are therefore willing to pay a higher amount for these products compared to the average luxury consumer. Furthermore, this study supports the research conducted by Kapferer and Michaut (2015), indicating that sustainability and quality are not only interconnected for the luxury consumer segment but also that this group is willing to pay for products that engage in sustainability.

#### Hypothesis 4 – Financial Luxury Consumer

As already assumed in the theoretical framework paragraph, the analysis of the data indicates that the financial luxury consumer segment, except for brand prestige, has a lower willingness to pay for all other product attributes than the average luxury consumer. As previously explained, this luxury segment purchases luxury fashion solely because of the expensive price and the exclusivity they obtain from it. However, other factors that often define luxury, such as high quality, craftsmanship, or timelessness, are irrelevant to this segment. In the financial luxury segment, sustainability does not increase exclusivity as price does. As a result, compared to the average luxury consumer, this segment is less willing to pay for sustainability as a product feature. Therefore, hypothesis 4 can also be confirmed, as the willingness to pay for

sustainability within this segment is lower than the willingness to pay for sustainability by the average luxury consumer.

#### Hypothesis 5 – Relative Attribute Importance of Sustainability

Irrespective of any segmentation, on the basis of the calculated part-worth utility scores and the resulting relative attribute importance, it can be determined that sustainability is overall the second most important product attribute for the average luxury consumer. As a result, hypothesis 5 can also be validated. Although sustainability originally was not considered a distinct luxury attribute, and even today does not exclusively stand for luxury, sustainability issues are becoming increasingly important for consumers and are gaining importance in their purchasing decisions. Luxury, in particular, cannot afford to be associated with harmful, irresponsible business practices, given the image, prestige, and price they embody. However, sustainability is not just a concept that luxury companies must comply with in order not to risk reputational consequences, but as this research shows, based on the relative importance of sustainability, it is something that customers value, demand, and are willing to pay for.

#### Hypothesis 6 – Luxury Consumers of Generation Y & Z

The hypothesis that luxury consumers from Generation Y&Z value sustainability more and therefore have a higher willingness to pay could not be confirmed in this research. In a comparative analysis of all luxury consumers of Generation Y&Z and all older generations, it became apparent that the older generations had both a higher relative attribute importance for sustainability (26.6% compared to 22.1% for Generation Y&Z) and a higher willingness to pay for sustainability (on average 202,01€ above the WTP of Generation Y&Z). Apart from the luxury segment of social luxury consumers, all other luxury consumer segments (and thus the clear majority) had a higher willingness to pay among the older generations than the luxury consumers of the generations Y&Z. However, it should be noted that the older generations, on average, have a higher disposable income than the younger generations and may therefore be willing to pay a higher amount for sustainability (Table 9). Nevertheless, this research shows that luxury consumers of the generations Y&Z, in contrast to the average luxury consumer, do not have a higher willingness to pay for sustainability, hence hypothesis 6 is rejected.

**Table 9:***Income Distribution among different Generations*

| Income (€)        | Generation Y&Z |      | Older Generation |      |
|-------------------|----------------|------|------------------|------|
|                   | n              | %    | n                | %    |
| <2000             | 36             | 49,3 | 2                | 5,3  |
| 2000 - 4000       | 21             | 28,8 | 4                | 10,5 |
| 4001 - 6000       | 6              | 8,2  | 5                | 13,2 |
| 6001 - 8000       | 2              | 2,7  | 6                | 15,8 |
| 8001 - 10000      | 0              | 0,0  | 7                | 18,4 |
| 10001 - 12000     | 2              | 2,7  | 1                | 2,6  |
| 12001 - 14000     | 0              | 0,0  | 0                | 0,0  |
| >14000            | 1              | 1,4  | 3                | 7,9  |
| Prefer Not to Say | 5              | 6,8  | 10               | 26,3 |
| Total             | 73             | 1    | 38               | 1    |

Note. Author's own illustration

## 7. Conclusion

This research provided an insight into consumers' preferences for buying luxury fashion which was quantified and therefore measurable using a choice-based conjoint analysis. In previous research, 4 different luxury consumer groups were identified, namely Social, Individual, Functional, and Financial luxury consumers (Wiedmann et al., 2009). However, existing research was only able to analyze what motivations and purchasing patterns these segments have for normal luxury goods. Until now, there has been a lack of understanding about the significance of sustainability and its financial value, particularly in the fashion industry, known for its negative impact on the environment.

By analyzing the different segments and the different product attributes, it became apparent that the main motivation for buying luxury fashion, consistently among all segments, is the high quality of the luxury products. Thereafter, the sustainability of luxury products followed, also universally among all luxury segments, reflecting the prominence and importance of this topic. The research also confirmed prior analyses and was able to validate Wiedmann et al.'s (2009) categorization of luxury segments based on their purchase motivations. After the dominant product attributes of quality and sustainability, every luxury segment had the highest preference for the segment-specific product attributes. However, by conducting the conjoint analysis, it was not only possible to determine the importance of the product attributes but also to quantify these in monetary values, using the respective willingness to pay. Thereby it could be determined that the average luxury consumer has a marginal willingness to pay for sustainably produced luxury fashion (in comparison to non-environmentally sustainable fashion) of 448.88€. For very sustainable luxury fashion, covering the entire product life cycle, luxury consumers have an additional willingness to pay of 28.12€.

Therefore, the Research Question can be answered with the conclusion that sustainability has a positive value overall and, thus a positive effect on the willingness to pay among all luxury fashion customer segments can be observed. This statement can be quantified in monetary values through the use and assessment of the conjoint analysis. As shown in Table 7, all luxury customer segments have a higher willingness to pay for a luxury fashion product if it embodies some form of sustainability.

According to these values and the previously mentioned luxury consumer segments, the Social, Individual, and Financial segments have a lower willingness to pay than the average luxury consumer, whereas the Functional and Sustainable Luxury segments have a higher willingness to pay. Contrary to previous assumptions, it could not be confirmed that younger luxury consumers, in contrast to the average consumer, have a higher willingness to pay for sustainability, contradicting previous findings by Gazzola et al. (2020).

### 7.1 Theoretical Contribution

By conducting this research, the previously existing gaps and academic inconclusive findings were successfully concluded, and the lack of monetary quantifiability of the various luxury attributes was addressed. The findings suggest that sustainability is not only an "implicit need" (Kapferer & Michaut, 2015, p.15), as previously assumed, but also a product attribute that customers desire and demand. Sustainability is not just a nice-to-have concept but a crucial attribute based on which luxury customers make their purchase decision and for which they are willing to pay a substantial value. Therefore, the suggestion is to expand existing luxury consumer classifications, such as those of Vigneron et al. (1999) or Wiedmann et al. (2009), by adding an additional luxury segment - the sustainable luxury consumer. In fact, the findings of this research suggest that this luxury segment exceeds the size of the financial luxury segment, and among all luxury segments, sustainability was found to be the second most important purchase motivation. This indicates that in existing literature, sustainability has not been sufficiently considered as a relevant purchase decision factor, and that there is an overlooked, however, relevant consumer segment that values sustainability in the luxury sector. Consequently, this segment of luxury consumers should be incorporated into existing frameworks in order to better identify and explore their purchase motivations. This ties in with other findings of Achabou and Dekhili (2013), who estimate that up to 30% of luxury consumers could fall into this segment.

### 7.2 Managerial Implications

For luxury fashion companies, this research indicates that although there are different luxury consumer segments, they all value the product attributes of quality and sustainability the most. Hence, the recommendation to luxury fashion companies is to continue to focus on the high quality of their products, which already is characteristic of luxury. Besides having a direct impact on a higher willingness to pay for quality, this also has a positive effect on sustainability, as higher quality results in a longer product lifetime, which in turn is more sustainable.

Conversely, companies should also place a higher value on product sustainability, as this is an increasingly growing and highly valued product attribute for all luxury segments. Yet, not only is it a matter of brand images and sustainable marketing activities, but actually product sustainability, as this is exactly the aspect that was investigated in this research, yielding positive values. Nonetheless, luxury fashion companies should emphasize their sustainability efforts since this also positively contributes to quality, as described above. Additionally, this research indicated that luxury customers in the sustainable segment had the highest willingness to pay for quality. By strategically positioning luxury fashion companies, these specific customer groups can be attracted by a more sustainable image, which in turn are willing to pay a significant price for the very high quality as well as the improved sustainability of the luxury products.

However, this research also demonstrated that the marginal willingness to pay for sustainability increases most strongly with the change from "not sustainable" to "sustainable" and therefore, companies should strategically start to produce their products in a sustainable and environmentally friendly way. In a subsequent step, they should optimize the entire product life cycle in a sustainable way, which confirms previous findings by Kapferer and Michaut (2015). In summary, it can be said that companies in the luxury fashion industry should be involved in environmental sustainability, however, not only because there are increasingly strict regulations and standards set by policymakers but also because customers demand and value them and are willing to pay for sustainability as a product attribute. Therefore, for companies, sustainability is not only a financial disadvantage due to higher production costs, but can also be used as a strategic tool for increased customer satisfaction, higher prices and thus as a profit-generating tool.

### 7.3 Limitations & Future Research

Despite these contributions, there were also some limitations to this research. First, the survey had a final response count of 111 participants, whereas a participant size of at least 200 would be recommended in order to generate more meaningful and significant insights. Consequently, the second limitation arose, which concerns the unequal number of participants per luxury consumer segment. In particular, the functional consumer segment was considerably overrepresented, which naturally had an impact on the averages of the luxury segments, making it more difficult to compare different segments against each other. Furthermore, this led to the circumstance that no statistically significant differences could be determined between the respective groups, as the particular segments were partially too small to determine a

representative difference among each other. Therefore, for future research, it would be sensible to conduct such a study among a greater number of participants in each segment in order to confirm the obtained results in a statistically significant manner. Furthermore, the analyzed data had different biases in relation to sociodemographics. For instance, females and young people were disproportionately overrepresented. Furthermore, the scope of this paper did not focus on specific locations, which could be explored in future research to determine whether there are differences in the willingness to pay for sustainability across different geographies.

Moreover, in future research, the social luxury consumer segment, identified in this research, should be further investigated in order to understand more precisely what characterizes this consumer segment, which values they advocate, and what influence it has in relation to other luxury consumer segments. In addition, future research should examine how the willingness to pay for sustainable luxury fashion products, which was theorized in this research, translates into practice. It is important to determine whether the calculated willingness to pay can be verified in reality, if there is a higher demand for sustainable products, and if luxury companies can actually sell sustainable products at a higher price level. Furthermore, the findings of this research only indicate the influence of sustainability in the luxury fashion industry, which is why future research should investigate whether this willingness to pay can also be detected in other luxury segments, such as the automotive (whose entire business model is ecologically unsustainable) or the hospitality industry. Finally, especially in the fashion industry, social sustainability is a major issue due to poor working conditions. As the findings of this research only refer to environmental sustainability, future research should investigate social sustainability's influence on the willingness to pay of luxury consumers.

Finally, it is important to note that sustainability is a rapidly evolving topic with increasing importance to society. For this reason, this subject should be analyzed and researched continuously, as consumer needs and preferences for sustainable luxury fashion can change over time, which companies in the luxury fashion industry should recognize in order to maximize and leverage their benefits.

## Appendix 1: Minimal Luxury Fashion Item Price Calculation

| Brand          | Item Type  | Sex    | Price (€) | Source  |
|----------------|------------|--------|-----------|---|
| Louis Vuitton  | T-Shirt    | Female | 650       | <a href="https://en.louisvuitton.com/eng-nl/products/louis-4-vuitton-t-shirt-nvprod4240072v1/ABCVA">https://en.louisvuitton.com/eng-nl/products/louis-4-vuitton-t-shirt-nvprod4240072v1/ABCVA</a>   |
| Louis Vuitton  | T-Shirt    | Male   | 485       | <a href="https://en.louisvuitton.com/eng-nl/products/signature-3d-pocket-monogram-t-shirt-nvprod1510035v1/A5W6E">https://en.louisvuitton.com/eng-nl/products/signature-3d-pocket-monogram-t-shirt-nvprod1510035v1/A5W6E</a>   |
| Christian Dior | T-Shirt    | Female | 650       | <a href="https://www.dior.com/en_at/fashion/products/313T09A4409_X0825-t-shirt-ecru-cotton-jersey-and-linen-with-vessel-motif">https://www.dior.com/en_at/fashion/products/313T09A4409_X0825-t-shirt-ecru-cotton-jersey-and-linen-with-vessel-motif</a>   |
| Christian Dior | Shirt      | Male   | 490       | <a href="https://www.dior.com/en_at/fashion/products/013C501A5616_C080-classic-shirt-white-cotton-canvas-with-thin-stripes">https://www.dior.com/en_at/fashion/products/013C501A5616_C080-classic-shirt-white-cotton-canvas-with-thin-stripes</a>   |
| Gucci          | T-Shirt    | Female | 390       | <a href="https://www.gucci.com/fr/en_gb/pr/women/ready-to-wear-for-women/t-shirts-sweatshirts-for-women/t-shirts-for-women/interlocking-g-1921-gucci-cotton-t-shirt-p-748287XJFND9095">https://www.gucci.com/fr/en_gb/pr/women/ready-to-wear-for-women/t-shirts-sweatshirts-for-women/t-shirts-for-women/interlocking-g-1921-gucci-cotton-t-shirt-p-748287XJFND9095</a> |
| Gucci          | T-Shirt    | Male   | 380       | <a href="https://www.gucci.com/fr/en_gb/pr/men/ready-to-wear-for-men/t-shirts-and-polo-for-men/cotton-t-shirt-with-double-g-p-700131XJEJF1043">https://www.gucci.com/fr/en_gb/pr/men/ready-to-wear-for-men/t-shirts-and-polo-for-men/cotton-t-shirt-with-double-g-p-700131XJEJF1043</a>   |
| Saint Laurent  | T-Shirt    | Female | 275       | <a href="https://www.ysl.com/fr-fr/jersey/t-shirt-en-coton-554298YZZJ29502.html">https://www.ysl.com/fr-fr/jersey/t-shirt-en-coton-554298YZZJ29502.html</a>   |
| Saint Laurent  | T-Shirt    | Male   | 275       | <a href="https://www.ysl.com/fr-fr/jersey/t-shirt-en-coton-554302YB2FT9000.html">https://www.ysl.com/fr-fr/jersey/t-shirt-en-coton-554302YB2FT9000.html</a>   |
| Prada          | T-Shirt    | Female | 470       | <a href="https://www.prada.com/fr/women/ready_to_wear/t-shirts_and_sweatshirts/products.T_shirt_interlock.3560A_240_F0002_S_212.html">https://www.prada.com/fr/women/ready_to_wear/t-shirts_and_sweatshirts/products.T_shirt_interlock.3560A_240_F0002_S_212.html</a>   |
| Prada          | Polo Shirt | Male   | 490       | <a href="https://www.prada.com/fr/men/ready_to_wear/t-shirts_and_polo_shirts/products.Polo_pique.UJN444_XGS_F0002_S_181.html">https://www.prada.com/fr/men/ready_to_wear/t-shirts_and_polo_shirts/products.Polo_pique.UJN444_XGS_F0002_S_181.html</a>   |
| Balenciaga     | T-Shirt    | Female | 395       | <a href="https://www.balenciaga.com/fr-fr/t-shirt-balenciaga-tab-oversize-noir-694576TMVB90100.html">https://www.balenciaga.com/fr-fr/t-shirt-balenciaga-tab-oversize-noir-694576TMVB90100.html</a>   |
| Balenciaga     | T-Shirt    | Male   | 395       | <a href="https://www.balenciaga.com/fr-fr/t-shirt-balenciaga-tab-oversize-noir-694576TMVB91000.html">https://www.balenciaga.com/fr-fr/t-shirt-balenciaga-tab-oversize-noir-694576TMVB91000.html</a>   |
| Loro Piana     | T-Shirt    | Female | 580       | <a href="https://de.loropiana.com/de/p/damen/oberteile-und-t-shirts/t-shirt-gargano-FAM8654?colorCode=H0HJ">https://de.loropiana.com/de/p/damen/oberteile-und-t-shirts/t-shirt-gargano-FAM8654?colorCode=H0HJ</a>   |
| Loro Piana     | T-Shirt    | Male   | 620       | <a href="https://de.loropiana.com/de/p/herren/polos-und-t-shirts/t-shirt-porto-venere-FAM9505?colorCode=1005">https://de.loropiana.com/de/p/herren/polos-und-t-shirts/t-shirt-porto-venere-FAM9505?colorCode=1005</a>   |
| Total          |            |        | 467,5     |   |

Source: Author's own price calculations, based on Luxury price lists

## Appendix 2: Maximum Luxury Fashion Item Price Calculation

| Brand          | Item Type  | Sex    | Price (€) | Source  |
|----------------|------------|--------|-----------|---|
| Louis Vuitton  | Pullover   | Female | 1000      | <a href="https://en.louisvuitton.com/eng-nl/products/louis-4-vuitton-knitted-pullover-nvprod4240062v/1ABCNJ">https://en.louisvuitton.com/eng-nl/products/louis-4-vuitton-knitted-pullover-nvprod4240062v/1ABCNJ</a>   |
| Louis Vuitton  | Hoodie     | Male   | 890       | <a href="https://en.louisvuitton.com/eng-nl/products/embroidered-signature-cotton-hoodie-nvprod3570122v/1ABIWO">https://en.louisvuitton.com/eng-nl/products/embroidered-signature-cotton-hoodie-nvprod3570122v/1ABIWO</a>   |
| Christian Dior | Swater     | Female | 950       | <a href="https://www.dior.com/en_at/fashion/products/844SS81AM115_X1228-sweater-ecru-cashmere-ribbed-knit">https://www.dior.com/en_at/fashion/products/844SS81AM115_X1228-sweater-ecru-cashmere-ribbed-knit</a>   |
| Christian Dior | Sweatshirt | Male   | 800       | <a href="https://www.dior.com/en_at/fashion/products/1131699A0531_C989-cd-icon-sweatshirt-black-cotton-fleece">https://www.dior.com/en_at/fashion/products/1131699A0531_C989-cd-icon-sweatshirt-black-cotton-fleece</a>   |
| Gucci          | Sweatshirt | Female | 790       | <a href="https://www.gucci.com/fr/en_gb/pr/women/ready-to-wear-for-women/t-shirts-sweatshirts-for-women/cotton-sweatshirt-with-logo-print-p-748286XJFNH9095">https://www.gucci.com/fr/en_gb/pr/women/ready-to-wear-for-women/t-shirts-sweatshirts-for-women/cotton-sweatshirt-with-logo-print-p-748286XJFNH9095</a> |
| Gucci          | Sweatshirt | Male   | 820       | <a href="https://www.gucci.com/fr/en_gb/pr/men/ready-to-wear-for-men/tracksuit-sweatshirts-for-men/cotton-jersey-sweatshirt-p-747809XJFL84120">https://www.gucci.com/fr/en_gb/pr/men/ready-to-wear-for-men/tracksuit-sweatshirts-for-men/cotton-jersey-sweatshirt-p-747809XJFL84120</a>                             |
| Saint Laurent  | Pullover   | Female | 590       | <a href="https://www.ysl.com/fr-fr/maile/pull-en-laine-603084YALK22611.html">https://www.ysl.com/fr-fr/maile/pull-en-laine-603084YALK22611.html</a>   |
| Saint Laurent  | Pullover   | Male   | 590       | <a href="https://www.ysl.com/fr-fr/maile/pull-en-laine-603088YALK22611.html">https://www.ysl.com/fr-fr/maile/pull-en-laine-603088YALK22611.html</a>   |
| Prada          | Pullover   | Female | 850       | <a href="https://www.prada.com/fr/fr/women/ready_to_wear/t-shirts_and_sweatshirts/products/Pull_en_coton.P24VIP_126Q_F0324_S_231.html">https://www.prada.com/fr/fr/women/ready_to_wear/t-shirts_and_sweatshirts/products/Pull_en_coton.P24VIP_126Q_F0324_S_231.html</a>   |
| Prada          | Sweatshirt | Male   | 1100      | <a href="https://www.prada.com/fr/fr/men/ready_to_wear/jogging_suits_and_sweatshirts/products.Sweat_shirt_en_coton_techique.UJL30A_110Q_F0806_S_222.html">https://www.prada.com/fr/fr/men/ready_to_wear/jogging_suits_and_sweatshirts/products.Sweat_shirt_en_coton_techique.UJL30A_110Q_F0806_S_222.html</a>       |
| Balenciaga     | Sweatshirt | Female | 595       | <a href="https://www.balenciaga.com/fr-fr/sweat-wfp-regular--noir-697869TMVL10107.html">https://www.balenciaga.com/fr-fr/sweat-wfp-regular--noir-697869TMVL10107.html</a>   |
| Balenciaga     | Hoodie     | Male   | 595       | <a href="https://www.balenciaga.com/fr-fr/sweat-wfp-regular-blanc-697869TMVL19086.html">https://www.balenciaga.com/fr-fr/sweat-wfp-regular-blanc-697869TMVL19086.html</a>   |
| Loro Piana     | Pullover   | Female | 850       | <a href="https://de.loropiana.com/de/p/damen/oberteile-und-t-shirts/pullover-mit-rundausschnitt-beausoleil-FAG1725?colorCode=1511">https://de.loropiana.com/de/p/damen/oberteile-und-t-shirts/pullover-mit-rundausschnitt-beausoleil-FAG1725?colorCode=1511</a>   |
| Loro Piana     | Pullover   | Male   | 770       | <a href="https://de.loropiana.com/de/p/herren/strickwaren/rundhalspullover-walkery-FAM0528?colorCode=1005">https://de.loropiana.com/de/p/herren/strickwaren/rundhalspullover-walkery-FAM0528?colorCode=1005</a>   |
| Total          |            |        | 799,29    |   |

Source: Author's own price calculations, based on Luxury price lists

Appendix 3: Conjoint Analysis Survey Design – Filter Question

Have you ever purchased or are you planning on purchasing luxury fashion in the near future?  
(clothes, leather goods, shoes etc.)

Yes

No

Go back

Source: Author’s Survey, extracted from Conjoint.ly

Appendix 4: Conjoint Analysis Survey Design – Segmentation Question

Please rank these criteria according to their importance in your decision making for luxury fashion products?

 Top

|   |   |
|---|---|
| Brand Image                                 | 1 |
| Social Status / Exclusivity                 | 2 |
| Environmental Sustainability of the Product | 3 |
| Feeling of Accomplishment                   | 4 |
| Product Quality                             | 5 |

 Bottom

Go back

Continue

Source: Author’s Survey, extracted from Conjoint.ly

Appendix 5: Conjoint Analysis Survey Design – Attribute Package Question

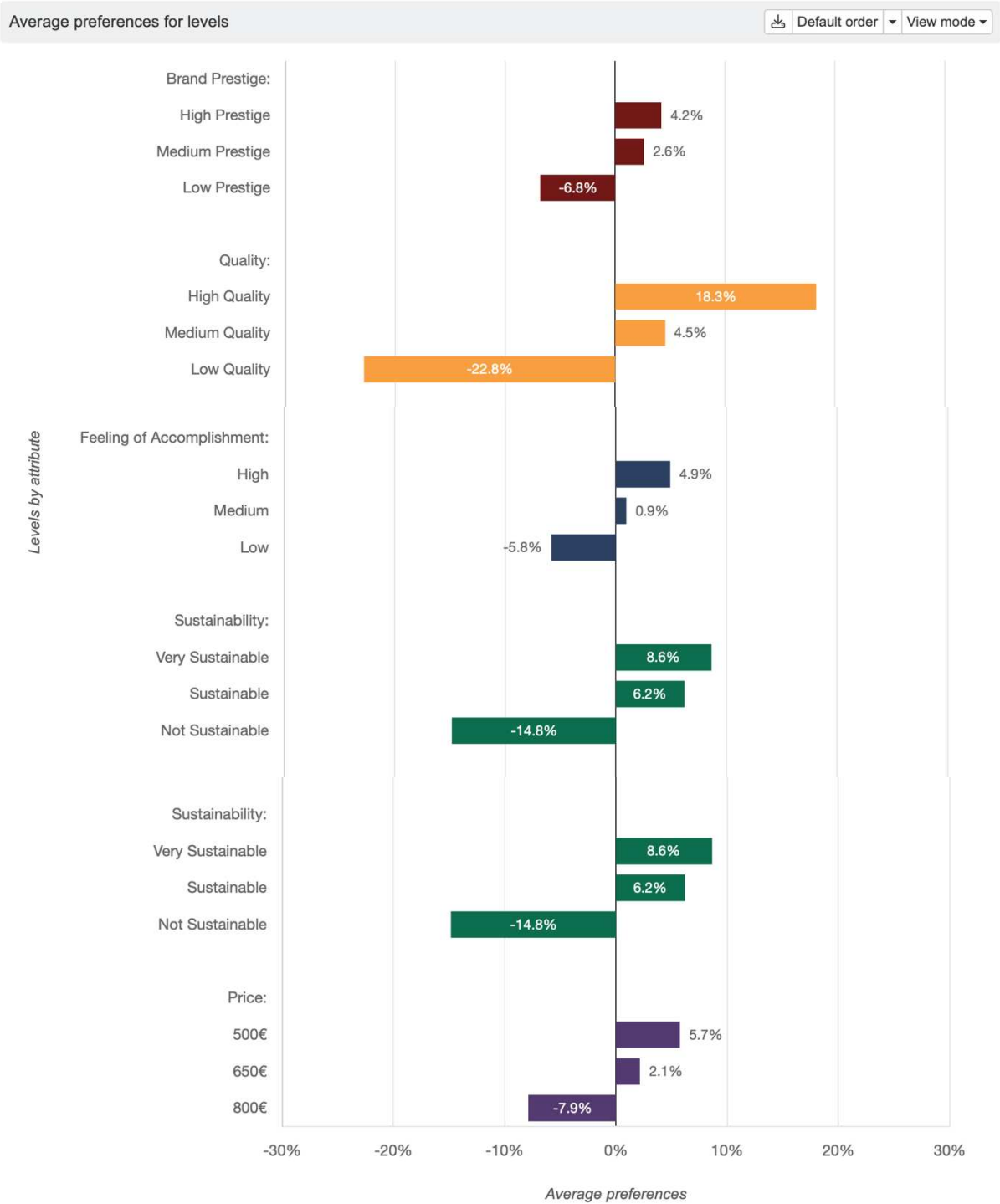
Which of the following Luxury Fashion Items would you choose?

|                                  |                |                 |                 |                     |
|----------------------------------|----------------|-----------------|-----------------|---------------------|
| <b>Brand Prestige</b>            | High Prestige  | Medium Prestige | Low Prestige    | ✘ None of the above |
| <b>Quality</b>                   | Medium Quality | Medium Quality  | Low Quality     |                     |
| <b>Feeling of Accomplishment</b> | High           | Medium          | Low             |                     |
| <b>Sustainability</b>            | Sustainable    | Sustainable     | Not Sustainable |                     |
| <b>Price</b>                     | 650€           | 500€            | 800€            |                     |

Go back

Source: Author’s Survey, extracted from Conjoint.ly

# Appendix 6: Average Attribute Level Preference



Source: Author’s own calculations, extracted from Conjoint.ly

## Bibliography:

- Achabou, M. A., & Dekhili, S. (2013). Luxury and sustainable development: Is there a match?. *Journal of business research*, 66(10), 1896-1903.
- Agyeman, J. (2008). Toward a 'just' sustainability? Continuum: *Journal of Media & Cultural Studies*, 22(6), 751–756. <https://doi.org/10.1080/10304310802452487>
- Alghanim, S., & Ndubisi, N. O. (2022). The Paradox of Sustainability and Luxury Consumption: The Role of Value Perceptions and Consumer Income. *Sustainability*, 14(22), 14694. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/su142214694>
- Bain & Company, 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/>
- Bala, M. V., Mauskopf, J. A., & Wood, L. L. (1999). Willingness to pay as a measure of health benefits. *Pharmacoeconomics*, 15(1), 9-18.
- Balconi, M., Sebastiani, R., & Angioletti, L. (2019). A Neuroscientific Approach to Explore Consumers' Intentions Towards Sustainability within the Luxury Fashion Industry. *Sustainability*, 11(18), 5105. <https://doi.org/10.3390/su11185105>
- Batat, W. (2019). The new luxury experience. Cham: *Springer International Publishing*.
- Berg, A., Granskog, A., Lee, L., & Magnus, K. (2020, December 14). *Fashion on climate*. McKinsey & Company. <https://www.mckinsey.com/industries/retail/our-insights/fashion-on-climate>
- Bhardwaj, V., & Fairhurst, A. (2010). Fast fashion: response to changes in the fashion industry. *The International Review of Retail, Distribution and Consumer Research*, 20(1), 165–173. <https://doi.org/10.1080/09593960903498300>
- Bozbay, Z., & Özkan, E. (2016). *The Effect of Brand Personality on Consumers' Brand Preference: The Mediating Role of Self-Expressive Value of Brand*.
- Breidert, C., Hahsler, M., & Reutterer, T. (2017). A REVIEW OF METHODS FOR MEASURING WILLINGNESS-TO-PAY. *Innovative Marketing*, 2(4). <https://www.businessperspectives.org/index.php/journals/innovative-marketing/issue-111/a-review-of-methods-for-measuring-willingness-to-pay>
- Browne, A. (2022). What Is Sustainability and Why Is It Important? *Earth.Org*. <https://earth.org/what-is-sustainability/>
- Brun, A., & Castelli, C. (2013). The nature of luxury: a consumer perspective. *International Journal of Retail & Distribution Management*, 41(11/12), 823–847. <https://doi.org/10.1108/ijrdm-01-2013-0006>

- Carcano, L. (2013). Strategic Management and Sustainability in Luxury Companies: The IWC Case. *The Journal of Corporate Citizenship*, 2013(52), 36–54. <https://doi.org/10.9774/gleaf.4700.2013.de.00006>
- Centobelli, P., Abbate, S., Nadeem, S. P., & Kumar, V. (2022). *Slowing the fast fashion industry: An all-round perspective*. *Current Opinion in Green and Sustainable Chemistry*, 38, 100684. <https://doi.org/10.1016/j.cogsc.2022.100684>
- Chandon, P., Wansink, B., & Laurent, G. (2000). A Benefit Congruency Framework of Sales Promotion Effectiveness. *Journal of Marketing*, 64(4), 65–81. <http://www.jstor.org/stable/3203478>
- Conjointly. (2019, November 29). What is goodness of fit? - Conjointly. *Conjointly*. <https://conjointly.com/faq/what-is-goodness-of-fit/>
- De Pelsmacker, P., Driesen, L., & Rayp, G. (2005). Do Consumers Care about Ethics? Willingness to Pay for Fair-Trade Coffee. *Journal of Consumer Affairs*, 39(2), 363–385. <https://doi.org/10.1111/j.1745-6606.2005.00019.x>
- Dekhili, S., Achabou, M. A., & Alharbi, F. R. (2019). Could sustainability improve the promotion of luxury products? *European Business Review*, 31(4), 488–511. <https://doi.org/10.1108/eb-04-2018-0083>
- Diesendorf, M. (2000). Sustainability and sustainable development. In D. Dunphy, J. Benveniste, A. Griffiths, & P. Sutton (Eds.), *Sustainability: The corporate challenge of the 21st century* (pp. 2, 19–37). Sydney: Allen & Unwin.
- Dimock, M. (2019). Defining generations: Where Millennials end and Generation Z begins. *Pew Research Center*, 17(1), 1-7.
- Dr. Bharati Rathore. (2023). Textile Industry 4.0: A Review of Sustainability in Manufacturing. *International Journal of New Media Studies (IJNMS)*, 10(1), 38–43. Retrieved from <https://ijnms.com/index.php/ijnms/article/view/41>
- Drumwright, M. E. (1994). Socially Responsible Organizational Buying: Environmental Concern as a Noneconomic Buying Criterion. *Journal of Marketing*, 58(3), 1–19. <https://doi.org/10.1177/002224299405800301>
- Dubois, D., Jung, S., & Ordabayeva, N. (2021). The psychology of luxury consumption. *Current Opinion in Psychology*, 39, 82–87. <https://doi.org/10.1016/j.copsyc.2020.07.011>
- Elkington, J., & Rowlands, I. H. (1999). Cannibals with forks: The triple bottom line of 21st century business. *Alternatives Journal*, 25(4), 42.
- Ellen MacArthur Foundation. (2017). *A New Textiles Economy: Redesigning fashion's future*. <https://ellenmacarthurfoundation.org/a-new-textiles-economy>
- European Commission. (n.d.). *Corporate sustainability reporting*. Retrieved January 7, 2023, from [https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting\\_en](https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en)

- Franco, J., Hussain, D., & McColl, R. (2019). Luxury fashion and sustainability: looking good together. *Journal of Business Strategy*, 41(4), 55–61. <https://doi.org/10.1108/jbs-05-2019-0089>
- Freeman, R. E. (2010). *Strategic management: A stakeholder approach*. Cambridge university press.
- Friedman, M. (1962). *Capitalism and freedom*. United States of America: University of Chicago Press.
- Friedman, M. (1970). *The social responsibility of business is to increase its profits*. The New York Times Magazine.
- Forbes Media LLC. (2023). *The Real-Time Billionaires List*. Forbes. Retrieved January 8, 2023, from <https://www.forbes.com/real-time-billionaires/#458cdc073d78>
- Gazzola, P., Pavione, E., Pezzetti, R. R., & Grechi, D. (2020). Trends in the Fashion Industry. The Perception of Sustainability and Circular Economy: A Gender/Generation Quantitative Approach. *Sustainability*, 12(7), 2809. <https://doi.org/10.3390/su12072809>
- Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). *The governance of global value chains*. Review of international political economy, 12(1), 78-104.
- Giovannini, S., Xu, Y., & Thomas, J. B. (2015). Luxury fashion consumption and Generation Y consumers. *Journal of Fashion Marketing and Management*, 19(1), 22–40. <https://doi.org/10.1108/jfmm-08-2013-0096>
- Global Footprint Network. (2018). *Measuring Sustainable Development - Ecological Footprint* [Dataset]. [https://data.footprintnetwork.org/?\\_ga=2.189533995.1203684748.1683544336-1470814376.1683544336#/sustainableDevelopment?cn=5001&type=earth&yr=2018](https://data.footprintnetwork.org/?_ga=2.189533995.1203684748.1683544336-1470814376.1683544336#/sustainableDevelopment?cn=5001&type=earth&yr=2018)
- Gray, R. (2010). Is accounting for sustainability actually accounting for sustainability ... and how would we know? An exploration of narratives of organisations and the planet. *Accounting, Organizations and Society*, 35(1), 47–62. doi:10.1016/j.aos.2009.04.006
- Groth, J. C., & McDaniel, S. W. (1993). The exclusive value principle: the basis for prestige racing. *Journal of Consumer Marketing*, 10(1), 10–16. <https://doi.org/10.1108/07363769310026539>
- Hák, T., Janoušková, S., & Moldan, B. (2016). Sustainable development goals: A need for relevant indicators. *Ecological Indicators*, 60(1), 565–573. doi:10.1016/j.ecolind.2015.08.003
- Hemmert, G. A., Schons, L. M., Wieseke, J., & Schimmelpfennig, H. (2018). Log-likelihood-based pseudo-R<sup>2</sup> in logistic regression: deriving sample-sensitive benchmarks. *Sociological Methods & Research*, 47(3), 507-531.
- Hennigs, N., Wiedmann, K. P., Klarmann, C., Strehlau, S., Godey, B., Pederzoli, D., ... & Oh, H. (2012). What is the value of luxury? A cross-cultural consumer perspective. *Psychology & Marketing*, 29(12), 1018-1034.

- Hennigs, N., Wiedmann, K., Klarmann, C., & Behrens, S. (2013). Sustainability as Part of the Luxury Essence: Delivering Value through Social and Environmental Excellence. *The Journal of Corporate Citizenship*, 2013(52), 25–35. <https://doi.org/10.9774/gleaf.4700.2013.de.00005>
- Jain, S. (2019). Factors Affecting Sustainable Luxury Purchase Behavior: A Conceptual Framework. *Journal of International Consumer Marketing*, 31(2), 130–146. <https://doi.org/10.1080/08961530.2018.1498758>
- Jones, T. M. (1980). *Corporate social responsibility revisited, redefined*. California management review, 22(3), 59-67.
- Joy, A., Sherry, J. F., Venkatesh, A., Wang, J., & Chan, R. Y. K. (2012). Fast Fashion, Sustainability, and the Ethical Appeal of Luxury Brands. *Fashion Theory*, 16(3), 273–295. <https://doi.org/10.2752/175174112x13340749707123>
- Kapferer, J.N. (2010). All that Glitters is not Green: The challenge of sustainable luxury. *European Business Review*.
- Kapferer, J. N. (2012). Abundant rarity: The key to luxury growth. *Business Horizons*, 55(5), 453–462. <https://doi.org/10.1016/j.bushor.2012.04.002>
- Kapferer, J. N. and Bastien, V. (2012) *The Luxury Strategy: Break the Rules of Marketing to Build Luxury Brands*, Kogan Page, London.
- Kapferer, J. N. (2015). *Kapferer on Luxury: How Luxury Brands Can Grow Yet Remain Rare* (1st ed.). Kogan Page.
- Kapferer, J., & Michaut, A. (2015). Luxury and sustainability: a common future? The match depends on how consumers define luxury. *Luxury Research Journal*, 1(1), 3. <https://doi.org/10.1504/lrj.2015.069828>
- Kapferer, J. N. (2017). *Managing luxury brands. Advances in luxury brand management*, 235-249.
- Ki, C., Lee, K. B., & Kim, Y. (2017). Pleasure and guilt: how do they interplay in luxury consumption? *European Journal of Marketing*, 51(4), 722–747. <https://doi.org/10.1108/ejm-07-2015-0419>
- Kim, A. J., & Ko, E. (2010). Impacts of Luxury Fashion Brand’s Social Media Marketing on Customer Relationship and Purchase Intention. *Journal of Global Fashion Marketing*, 1(3), 164–171. <https://doi.org/10.1080/20932685.2010.10593068>
- Kirchherr, J., Reike, D., & Hekkert, M. P. (2017). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources Conservation and Recycling*, 127, 221–232. <https://doi.org/10.1016/j.resconrec.2017.09.005>
- Kozlowski, A., Bardecki, M., & Searcy, C. (2012). Environmental impacts in the fashion industry: A life-cycle and stakeholder framework. *Journal of Corporate Citizenship*, (45), 17-36.

- KPMG. (November 27, 2020). Companies who report on sustainability worldwide from 1993 to 2020 [Graph]. In *Statista*. Retrieved January 06, 2023, from <https://www-statista-com.revproxy.escpeurope.eu/statistics/1232295/global-sustainability-reporting-growth-rate/>
- Le Gall-Ely, M. (2009). Definition, measurement and determinants of the consumer's willingness to pay: a critical synthesis and avenues for further research. *Recherche et Applications en Marketing* (English Edition), 24(2), 91-112.
- Lee, H., Rothenberg, L., & Xu, Y. (2020). Young luxury fashion consumers' preferences in multi-channel environment. *International Journal of Retail & Distribution Management*.
- Li, J. J., Liu, H., & Chen, J. C. (2017). Microplastics in freshwater systems: A review on occurrence, environmental effects, and methods for microplastics detection. *Water Research*, 137, 362–374. <https://doi.org/10.1016/j.watres.2017.12.056>
- Marrewijk, M. (2003). *Concepts and Definitions of CSR and Corporate Sustainability: Between Agency and Communion* (Vol. 44).
- Mukendi, A., Davies, I. A., Glozer, S., & McDonagh, P. (2020). Sustainable fashion: current and future research directions. *European Journal of Marketing*, 54(11), 2873–2909. <https://doi.org/10.1108/ejm-02-2019-0132>
- Nelissen, R. M., & Meijers, M. H. (2011). Social benefits of luxury brands as costly signals of wealth and status. *Evolution and human behavior*, 32(5), 343-355.
- Niinimäki, K., Peters, G., Bontempi, E., Perry, P., Rissanen, T., & Gwilt, A. (2020). The environmental price of fast fashion. *Nature Reviews Earth & Environment*, 1(4), 189–200. <https://doi.org/10.1038/s43017-020-0039-9>
- Persson, L., Almroth, B. C., Collins, C. M., Cornell, S., De Wit, C. A., Diamond, M., Fantke, P., Hassellöv, M., MacLeod, M., Ryberg, M., Jørgensen, P. M., Villarrubia-Gómez, P., Wang, Z., & Hauschild, M. Z. (2022). Outside the Safe Operating Space of the Planetary Boundary for Novel Entities. *Environmental Science & Technology*, 56(3), 1510–1521. <https://doi.org/10.1021/acs.est.1c04158>
- Porter, M. E., & Kramer, M. R. (2006). *Strategy & Society*. Harvard Business Review, December, 1–16.
- Ramchandani, M., & Coste-Manière, I. (2017). To Fur or not to Fur: Sustainable Production and Consumption Within Animal-Based Luxury and Fashion Products. In *Textile science and clothing technology*. Springer, Singapore. [https://doi.org/10.1007/978-981-10-2131-2\\_2](https://doi.org/10.1007/978-981-10-2131-2_2)
- Raupach, M. R., Davis, S. J., Peters, G. P., Andrew, R. M., Canadell, J. G., Ciais, P., ... & Le Quéré, C. (2014). Sharing a quota on cumulative carbon emissions. *Nature Climate Change*, 4(10), 873-879.
- Ritchie, H. (2020, May 11). CO<sub>2</sub> and Greenhouse Gas Emissions. *Our World in Data*. <https://ourworldindata.org/co2-emissions#global-co2-emissions-from-fossil-fuels-and-land-use-change>

- Roxas, B., & Lindsay, V. J. (2012). Social Desirability Bias in Survey Research on Sustainable Development in Small Firms: an Exploratory Analysis of Survey Mode Effect. *Business Strategy and the Environment*, 21(4), 223–235. <https://doi.org/10.1002/bse.730>
- Saunders, M.N.K., Lewis, P. and Thornhill, A. (2019) *Research Methods for Business Students*. 8th Edition, Pearson, New York.
- Sgarbossa, F., & Russo, I. (2017). A proactive model in sustainable food supply chain: Insight from a case study. *International Journal of Production Economics*, 183, 596–606. <https://doi.org/10.1016/j.ijpe.2016.07.022>
- Song, S. Y., & Kim, Y. K. (2019). Doing good better: Impure altruism in green apparel advertising. *Sustainability*, 11(20), 5762.
- Stehl, K., Ng, L., & Feehily, M. (2022, August 23). *EU Corporate Sustainability Reporting Directive—What Do Companies Need to Know*. The Harvard Law School Forum on Corporate Governance. <https://corpgov.law.harvard.edu/2022/08/23/eu-corporate-sustainability-reporting-directive-what-do-companies-need-to-know/>
- Thomas, D. (2022, February 20). *Inside The Luxury Fashion Industry’s Big Sustainability Push*. British Vogue. <https://www.vogue.co.uk/fashion/article/fashion-industry-sustainability>
- Uddin, F. (2021). Environmental hazard in textile dyeing wastewater from local textile industry. *Cellulose*, 28(17), 10715–10739. <https://doi.org/10.1007/s10570-021-04228-4>
- United Nations, (2015). *Transforming our World: The 2030 Agenda for Sustainable Development* (A/RES/70/1).
- United Nations, (2016). *Paris Agreement*. Paris: United Nations, pp.1-27.
- United Nations, Department of Economic and Social Affairs, Population Division (2022). *World Population Prospects 2022*, Online Edition.
- Valodka, I., Snieška, V., & Mihi-Ramirez, A. (2020). Impact of the International Trade on the EU Clothing Industry Carbon Emissions. *The Engineering Economics*, 31(3), 314–322. <https://doi.org/10.5755/j01.ee.31.3.25012>
- Vigneron, F., Johnson, L. W., & Mt, M. (1999). A Review and a Conceptual Framework of Prestige-Seeking Consumer Behavior. *Academy of Marketing Science Review*.
- Vigneron, F., & Johnson, L. W. (2004). Measuring perceptions of brand luxury. *Journal of Brand Management*, 11(6), 484–506. <https://doi.org/10.1057/palgrave.bm.2540194>
- Wang, P., Kuah, A. T., Lu, Q., Wong, C., Thirumaran, K., Adegbite, E., & Kendall, W. Y. (2021). The impact of value perceptions on purchase intention of sustainable luxury brands in China and the UK. *Journal of Brand Management*, 28(3), 325–346. <https://doi.org/10.1057/s41262-020-00228-0>

- Wang, X., Sung, B., & Phau, I. (2021). Examining the influences of perceived exclusivity and perceived rarity on consumers' perception of luxury. *Journal of Fashion Marketing and Management*, 26(2), 365–382. <https://doi.org/10.1108/jfmm-12-2020-0254>
- Wang, Z., Yuan, R., Luo, J., & Liu, M. J. (2022). Redefining “masstige” luxury consumption in the post-COVID era. *Journal of Business Research*, 143, 239–254. <https://doi.org/10.1016/j.jbusres.2022.01.057>
- WCED (World Commission on Environment and Development). (1987). *Our common future. The Brundtland Report*. Oxford: Oxford University Press.
- Werther, W. B., & Chandler, D. (2005). Strategic corporate social responsibility as global brand insurance. *Business Horizons*, 48(4), 317–324.
- Wiedmann, K., Hennigs, N., & Siebels, A. (2009). Value-based segmentation of luxury consumption behavior. *Psychology & Marketing*, 26(7), 625–651. <https://doi.org/10.1002/mar.20292>
- Wong, G. Y., & Mason, W. M. (1985). The hierarchical logistic regression model for multilevel analysis. *Journal of the American Statistical Association*, 80(391), 513-524.