



Master's Degree Program in Strategic Management

Department of Business and Management

Course of Organizing For Societal Impact

***Driving Sustainable Luxury: ESG Comparison between  
BMW and NIO (Germany vs. China) and Consumers'  
Perspectives***

***Exploring Strategic Sustainability Integration in the Automotive Sector  
through Quantitative Analysis and Consumers' Perception***

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## Abstract

**Purpose:** This research seeks to explore the ways, in which sustainability can be genuinely incorporated into the luxury automotive sector, through the connection of ESG performance on the firm-side, with consumer perceptions - mapping out that sustainability fosters exclusivity and under what conditions it results in being translated into a Form of Expression (WTP).

**Methodological approach:** The mixed-methods design consists of a *comparative ESG analysis of BMW and NIO* based on company disclosures and ratings by third parties (e.g., MSCI, Sustainalytics), and an original *consumer survey carried out on Prolific* (n = 217; Likert 1–5), measuring sustainability salience, exclusivity - sustainability beliefs, trust/credibility, influence on choice, and WTP.

**Findings:** The issue of sustainability is deemed by consumers to be quite important in the category of luxury (mean 3.60/5) and especially in the segment of luxury cars (mean 3.74/5).

The consumers are not willing to accept the trade-off (“exclusivity even if it limits sustainability” mean 2.42/5), and they confirm the compatibility (“a sustainable luxury car can still be exclusive”, mean 4.28/5).

Moreover, they agree that the value for the customer presented by being sustainable increases (3.73/5).

There is an evident *gap in credibility*: perceived effective corporate investment (2.76/5) and trust in brand claims (2.70/5) do not meet expectations.

WTP is positive but conditional (3.10/5), significantly lower than the reported influence on choice (3.61/5).

The study incorporates firm and consumer perspectives to conceive them as going through an *Evidence* → *Credibility* → *Value* → *WTP pathway*: model-level, verified outcomes are the lever to convert attitudes into price acceptance.

**Originality and value:** This paper innovatively constructs a sustainable exclusive model of behavior, where sustainability is

the diverging point, and not a threat of the already existing luxury codes of provenance, craftsmanship, durability, and technological mastery, also, it provides an integrative framework that connects ESG capabilities, to investor-facing consumer value formation.

**Limitations/Further studies:** Non-probability online sample, cross-sectional, self-reported measures, and concentration on two brands limit the generalizability of results, and cause the direction of the causal relationships to remain unknown. It could be suggested, for future studies, experiments/choice models (e.g., conjoint), incentive - compatible WTP, longitudinal tracking, and cross-country replications should be applied to examine the proposed mechanism.

**Keywords:** Sustainable luxury, ESG, luxury automotive; Luxury Paradox; exclusivity; trust/credibility; willingness to pay; responsible exclusivity; consumer perception; BMW; NIO.

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## Introduction

Sustainability is no longer a marginal topic of discussion and has become a central factor, for the legitimacy of businesses in modern markets.

The change is least clear in the luxury sector, which has traditionally been dependent on uniqueness, symbolic meaning, and the use of high-quality materials.

The *luxury - sustainability paradox*, recognized as the feeling that social responsibility could lessen rarity and status, *is not only a strategic question for companies, but also a theoretical problem for scholars. (Kapferer & Michaut-Denizeau, 2014).*

The luxury automotive sector is deepening this conflict, as it mixes complicated global supply chains, with high environmental impact and, at the same time, with strong cultural narratives of performance, design, and heritage.

This is why companies are at a crossroads and must, both, show a strong environmental and social performance, and make this performance visible in the consumer's value, without the loss of exclusivity.

Corporate sustainability is mostly evaluated using firm-side indicators, such as ESG ratings, reports, targets and third-party evaluations, which constitute the basis for benchmarking good practices and risks.

However, these do not reveal, by themselves, consumer interpretations of sustainability in the luxury value proposition. Mainly, there are three questions that are still not sufficiently discussed:

*Do consumers see sustainability as being in harmony with exclusivity in the luxury automotive field? Could the sustainability aspect be a factor to perceived value and choice, and under what credibility conditions? How the firm-side ESG performance corresponds or not with consumer expectations?*

It is essential to close this gap, in order to clarify the role of sustainability in luxury brand meaning, whereas in regard to

practice, it is about embedding, product, and communication strategies without falling into the traps of generic claims. According to this, the study investigates the implementation of sustainability in the luxury automotive, analyzing the consumers perception.

The work is come up with four research questions:

1. Do consumers perceive sustainability as compatible with, rather than opposed to, exclusivity in luxury automotive?
2. Does sustainability increase perceived value and influence purchase choice for luxury cars?
3. How do trust/credibility in brand sustainability claims relate to willingness to pay for sustainable luxury cars?
4. How do the ESG profiles of two focal brands (BMW and NIO) align with the expectations and preferences expressed by consumers?

This study takes a mixed-methods design: a comparative ESG analysis of BMW and NIO synthesizes company disclosures, with leading third-party assessments to build a composite evaluation. The intention is not to make a new rating, but to explain how governance, strategy, and environmental programs might be made understandable by consumers.

Also, a survey was conducted on Prolific measures: the salience of sustainability in luxury; beliefs about the exclusivity–sustainability nexus; perceptions of effective corporate investment and trust in claims; and the willingness to pay for sustainable luxury cars. The analysis is distributional evidence and considers patterns across constructs.

The paper presents a concept of responsible exclusivity, that hinges on a view of sustainability as a source of luxury, only when it is deeply rooted in the origin, craftsmanship, durability, and technological mastery of a product rather than being merely a symbolic add-on.

Credibility and trust are seen as the main channel, through which pro-sustainability attitudes lead to a WTP, thus explaining the occurrence of the largest gap between favorable attitudes and monetary commitment.

The paper presents an *Evidence* → *Credibility* → *Value* → *WTP* pathway: not only should the capabilities of a company be translated into outcomes, that are verified at the model level (as assured LCAs, traceability), but they are also for building trust, raising perceived luxury value, and unlocking price acceptance.

The contributions offered by the work are:

1. Conceptual, articulating responsible exclusivity - a view in which sustainability enhances luxury when embedded in provenance, craftsmanship, durability, and technological mastery, rather than treated as a symbolic add-on.
2. Mechanistic, identifying credibility and trust as the practical conduit from pro-sustainability attitudes to willingness to pay, explaining the frequent gap between favorable attitudes and monetary commitment.
3. Integrative, as it bridges investor-facing ESG with consumer value formation, specifying how firm-side performance becomes owner-visible proof that can be perceived, valued, and monetized in the marketplace.

The empirical focus is luxury automotive and two illustrative brands (BMW and NIO). The consumer evidence is cross-sectional and self-reported, drawn from a non-probability online sample; results are therefore exploratory rather than statistically representative or causal. These boundaries are acknowledged and addressed in the thesis, through transparent reporting, conservative interpretation, and proposals for experimental and longitudinal follow-ups.

The first chapter introduces the concept of luxury, sustainability and both in the automotive sectors, already established in

literature, delivering the framework of the paradox and explaining the key terms.

The second chapter is focused on the details of the research and ESG evaluation framework, also covering the case selection and data sources.

Chapter 3 is about the ESG comparative performance analysis between BMW and NIO.

The fourth chapter deals with consumer survey results, and analytical discussion from the consumer perspective.

The final chapter summarizes the findings of the research, compares thesis positions against the literature, outlines theoretical and managerial contributions, and recognizes thesis restrictions as an indication of future research.

Central to the study, is the argument that sustainable luxury in automotive is not a paradox but a capability choice (*Kapferer & Michaut-Denizeau, 2014*). Those that legitimize sustainability from a set of claims into a fully audited, model-level impact that speaks the language of luxury (*Beverland, 2006; Dion & Arnould, 2011; MSCI ESG Research, 2024; Sustainalytics, 2024; CDP, 2025*), will find consumers ready to see it as value-adding - and thus, under certain conditions, to be rewarded (*Griskevicius et al., 2010; Teisl et al., 2002; Luchs et al., 2010*).

## Chapter 1 – The Green Turn: Luxury and Sustainability in the Automotive Sector

During the last years, luxury has remarkably changed.

While, in the past it was primarily about status, richness and opulence, now it more often connects to other, more nuanced and complex values.<sup>1</sup>

In this pursuit, luxury has particularly benefitted from the ecological cause, as in fact it is thanks to this latter that luxury has so to speak re-invented itself, and has been able to look into the eye its old self to drive at new answers.

Performing this may be, among other things, how luxury industries (also the automotive one) have started envisioning new business model strategies, and flourished going forward.<sup>2</sup> Indeed, many car manufacturers out of the luxury segment, and not just those, have gradually come to realize that they can no longer ignore profit in the first place, and then good performance, or beautiful design, but they should also reflect on reducing their environmental and societal burden. This latter has, consequently, to people's good judgment and taste, become an indispensable requirement to speak of luxury today.<sup>3</sup>

As a result, well one may talk about how luxury businesses promote sustainability, however little is said on how this culture can be embraced in other countries as well, considering that binge-production systems and involving supply chains granted, the talk would then come on the automotive world in particular, do shape national, if not better say, international culture and

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<sup>1</sup> Kapferer, J.-N., & Bastien, V. (2012). *The Luxury Strategy: Break the Rules of Marketing to Build Luxury Brands* (2nd ed.). Kogan Page.

<sup>2</sup> Batat, W. (2023). *The pursuit of luxury or luxuries? A framework of the past, present, and future of luxury research. Consumption Markets & Culture.*

<sup>3</sup> Deloitte. (2021). *2021 Global Automotive Consumer Study.*

industrial history.<sup>4</sup>

The aim of this chapter is to offer a comprehensive overview of the existing literature, on luxury and sustainability, with a focus on the automotive industry, as the debate on the transformation of luxury, the forces propelling the luxury industry to move toward a responsible direction and, least but not last, the building of their positioning, in the triangle of *excellence* (Beverland, 2006; Dion & Arnould, 2011; Kapferer & Bastien, 2012), *-sustainability as an institutionalized corporate commitment* (European Commission, 2020; GRI, 2021; OECD, 2023) *-endurance (as durability/timelessness supported by circular practices and second-hand value - Turunen & Leipämaa-Leskinen, 2015)*, have all been considered subjects. This chapter is, besides, the theoretical ground from which to develop and bring forth the empirical contribution. It aims to explore how brands construct their strategic positioning, within the emerging triad of **excellence**, **sustainability**, and **endurance**, thus setting the theoretical foundation for the empirical contribution that follows.

## 1.1 Defining Luxury

Luxury is a complex concept and is ideally rooted in culture, making it quite difficult to distil into a single accepted definition. Traditionally, luxury is a concept that has always been linked to scarcity, quality, unrivalled craftsmanship, provenance, and a high price tag.<sup>5</sup> Moreover, it has been often used as a badge of social status and distinction<sup>6</sup>, fulfilling the

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<sup>4</sup> Bhatia, A., & Jain, R. (2022). *Sustainable practices in the automotive sector: A strategic overview*. *Journal of Cleaner Production*

<sup>5</sup> Kapferer, J.-N., & Bastien, V. (2012). *The luxury strategy: Break the rules of marketing to build luxury brands* (2nd ed.). Kogan Page.

<sup>6</sup> Veblen, T. (1899). *The theory of the leisure class*. Macmillan.

function of not just a technical object, but also of an item of desire and consumption that is rich in symbolic meaning.

Nevertheless, luxury has evolved, in response to changing societal values. The challenge is to redefine it.

The most recent interpretation of the luxury trend increasingly draws from experience, storytelling, and meaning. Back in time, scholars, such as *Beverland (2006)*<sup>7</sup>, or *Dion & Arnould (2011)*<sup>8</sup>, *underlined that luxury is shifting from being product-centric to experience-centric: meaning, narrative and sustainability seemed to be the paradigm.*

Elaborating on this evolution, Dion & Arnould explained how retail luxury strategy has, as its core, the construction of a charismatic image of the creative director, who represents, not only the “animator” of the maison's style, but also promotes a true artistic and incantatory culture.

Luxury stores, in this context, become sacred places devoted to the celebration of the creative director's aura “*The treasure trove of war, and that's really war!-is prepared by conquest with the use of museum and artistic pieces with which the awaiting the miracle...*”<sup>9</sup>

In addition to consumer education, it's necessary also to discuss the “**new luxury**” which respects the aspects of prestige and it's characterized by transparency, sustainability, and social awareness.<sup>10</sup>

Batat (2023) extends this shift by proposing a four dimensions framework that studies luxury through the philosophical, historical-cultural, and anthropological disciplines of vision.

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<sup>7</sup> Beverland, M. B. (2006). The ‘real thing’: Branding authenticity in the luxury wine trade. *Journal of Business Research*, 59(2), 251–258

<sup>8</sup> Dion, D., & Arnould, E. (2011). Retail luxury strategy: Assembling charisma through art and magic. *Journal of Retailing*

<sup>9</sup> Dion, D., & Arnould, E. (2011). Retail luxury strategy: Assembling charisma through art and magic. *Journal of Retailing*

<sup>10</sup> Silverstein, M. J., & Fiske, N. (2003). Luxury for the masses. *Harvard Business Review*

Luxury is characterized by a pluralism, due to the fact that it doesn't have an universal meaning across different eras, cultures, and consumers.<sup>11</sup> It turns out to be more and more perceived not only in terms of its aesthetic and symbolic qualities, but also through an ethical lens. Consumers are no longer looking for the one and only version of it: they're looking for a series of diverse, context-dependent luxuries.

This point of view supports the idea that luxury is about self-care, cultural belonging and even social revolution.

At the same time, today's customers are more and more demanding that luxury brands become providers of green and ethical values. Bain & Company (2023) states that the onset of “**quiet luxury**” – characterized by modesty, quality, and sustainability – corresponds to the changing needs of the very rich who mainly focus on discretion rather than on showiness.<sup>12</sup>

In this regard, luxury brands have to find a way to tie their history and symbolism with the demands of the morally green consumers in this era.<sup>13</sup> Car makers are a good example of this correlation. Traditional brands like BMW or futuristic companies like NIO are on this journey of change, so they have to find a balance between emotional appeal and setting the bar high in terms of social pressure forces them to be more eco-friendly, more circular, and less carbon-intensive.<sup>14</sup>

This constantly changing aspect of the talks between the two would be the basis for the next part, which would describe in detail the effects of the environmental situation on the luxury goods market.

In the specific case, auto manufacturers clearly represent one of

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<sup>11</sup> Batat, W. (2023). *The pursuit of luxury or luxuries? A framework of the past, present, and future of luxury research. Consumption Markets & Culture.*

<sup>12</sup> Bain & Company, & Fondazione Altagamma. (2023). *Luxury Goods Worldwide Market Study, Fall–Winter 2023.*

<sup>13</sup> Batat, W. (2023). *The pursuit of luxury or luxuries? A framework of the past, present, and future of luxury research.*

<sup>14</sup> Bhatia, A., & Jain, R. (2022). *Sustainable practices in the automotive sector: A strategic overview.*

the stakeholder speaking the most on this subject. Indeed, luxury carmakers are today presented with the challenge of reconciling the elegance of the past with the needs of an ethical consumer now well versed into issues such as electric cars, the circular economy, and climate change regulation.<sup>15</sup>

## 1.2 Luxury and Sustainability

Traditionally, the relationship between luxury and sustainability has been seen as a contradiction.<sup>16</sup>

Luxury is often seen as over-the-top, overflowing with goods, and very exclusive - characteristics that seemingly go against the core of sustainability<sup>17</sup>, which advocacy for sharing resources, living a simple life, and the humane treatment of all people.<sup>18</sup>

However, recent times have seen the escalation of an influx of scholars and experts who increasingly came to the conclusion that luxury and sustainability are not only compatible<sup>19</sup>, but also able to energize each other, if they are read in the light of the consumer's changing expectations and brand repositioning.<sup>20</sup>

Kapferer and Michaut (2015) emphasise that the harmonisation of luxury and sustainability is predominantly a matter of consumers' conceptions of luxury. It is evident that individuals who perceive luxury to be synonymous with expertise, resilience, and provenance are also of the opinion that it is

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<sup>15</sup> Turunen, L. L. M., & Leipämaa-Leskinen, H. (2015). Precarious pets and fantastic fashion: Consumer ambivalence toward animal-based luxury products. *Journal of Business Research*

<sup>16</sup> Kapferer, J.-N., & Michaut, A. (2015). *Luxury and sustainability: A common future? The match depends on how consumers define luxury.*

<sup>17</sup> Veblen, T. (1899). *The Theory of the Leisure Class*. Macmillan.

<sup>18</sup> Kapferer, J.-N., & Bastien, V. (2012). *The Luxury Strategy: Break the Rules of Marketing to Build Luxury Brands* (2nd ed.). Kogan Page.

<sup>19</sup> Batat, W. (2023). *The pursuit of luxury or luxuries? A framework of the past, present, and future of luxury research.*

<sup>20</sup> Kapferer, J.-N., & Michaut, A. (2015). *Luxury and sustainability: A common future? The match depends on how consumers define luxury.*

inherently sustainable.

On the other hand, if luxury is defined as being independent of overconsumption, status seeking or waste, then it cannot, by definition, be sustainable.

It was also determined that while sustainability is not often the primary purchasing consideration for consumers of luxury items, a significant proportion of consumers anticipate that luxury brands will demonstrate responsibility and set an example in terms of ethics, given the price of the product and the influence of these brands in society.<sup>21</sup>

Batat (2023) agrees with the same opinion and proposes a new definition of a luxury, which is different from the conventional materialistic one.

The modern idea of luxury is changed to include concepts of consciousness, change and the attempt to do good.

This change of mindset is based on the idea that sustainability is the core of luxury and not just one of its parts.

This new position is illustrated by the younger generation, which is quite energetic in finding the brands which match their environmental and social beliefs, without losing the luxury concepts aspirational character.<sup>22</sup>

From a strategic perspective, the luxury sector has historically engaged with the concept of sustainability through a variety of approaches, including the direct management of production processes, the integration of conscious design principles, enhanced visibility, and a substantial commitment to promoting a circular economic model.<sup>23</sup>

As Turunen and Leipämaa-Leskinen (2015) have previously argued, there are occasions when luxury clients may experience

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<sup>21</sup> *Luxury and sustainability: A common future? The match depends on how consumers define luxury. Luxury Research Journal,*

<sup>22</sup> **Batat, W. (2023).** *The pursuit of luxury or luxuries? A framework of the past, present, and future of luxury research. Consumption Markets & Culture*

<sup>23</sup> **Bhatia, A., & Jain, R. (2022).** *Sustainable practices in the automotive sector: A strategic overview.*

disquiet, when sustainability measures are implemented in a manner that is incompatible with garments derived from animal origin or a brand's established symbols of luxury.<sup>24</sup>

Still, this uneasiness can be dealt with. To get the result they want, brands should show an honest interest in sustainability, openness when it comes to their activities, and prove that their words and deeds are in harmony.

The concept of sustainability is, essentially, swiftly changing the face of luxury in the 21st century.<sup>25</sup>

It has been conjectured that brands, that manage to combine quality and sustainability, will probably create deep customer loyalty, robustness, and cultural relevance.<sup>26</sup>

The change mentioned applies particularly to the car industry. The industry is faced with the need to blend green and ethical issues with the luxury car experience, still, being able to retain the aspects that characterize the driving experience, such as its adventurous nature, its history, and its beauty.<sup>27 28</sup>

### **1.3 The Specificities of Luxury in Automotive**

Luxury in the automotive industry is a prototype luxury product that shows particular differences with respect to applicability in other luxury areas as fashion, hospitality, or high-end cosmetics products.<sup>29</sup>

Without deleting the basic principles of luxury - i.e., exclusiveness, tradition, top design, and the creation of

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<sup>24</sup> Turunen, L. L. M., & Leipämaa-Leskinen, H. (2015). *Precarious pets and fantastic fashion: Consumer ambivalence toward animal-based luxury products*.

<sup>25</sup> Batat, W. (2023). *The pursuit of luxury or luxuries? A framework of the past, present, and future of luxury research*.

<sup>26</sup> Whelan, T., & Fink, C. (2016). *The comprehensive business case for sustainability*. *Harvard Business Review*.

<sup>27</sup> Deloitte. (2021). *2021 Global Automotive Consumer Study*

<sup>28</sup> Bain & Company, & Fondazione Altagamma. (2023). *Luxury Goods Worldwide Market Study, Fall–Winter 2023*.

<sup>29</sup> Kapferer, J.-N., & Bastien, V. (2012). *The Luxury Strategy: Break the Rules of Marketing to Build Luxury Brands* (2nd ed.).

emotions—the luxury car calls upon additional factors, all voiced from the brand's origins in cutting-edge technology, engineering excellence and the performance of their cars.<sup>30</sup>

In other words, a luxury car doesn't just stand for status or look, it also means the very best of technology, new ideas come into being, comfort, driving pleasure and so forth.

As it was stated by Kapferer and Bastien (2012), the automotive luxury is the absolute luxury, as they talk of the product that should be invested with values symbolic, functional and experiential. Very often, owning a luxury car is a deeply emotional experience and a form of self-expression as it is an instrument that speaks for us, for our personal and taste, for standing in a society. (*Belk, 1988; Han, Nunes, & Drèze, 2010*) Of course, the symbolic value of this kind of car is even stronger in the emerging countries where their purchase is the obvious tell-tale sign of reaching a higher socio-economic stage (*Deloitte, 2021*). The very name, be it Ferrari, Porsche, Mercedes-Maybach, or Bentley, in itself brings back to those stories of excellence, glory, and aspiration that surround the brand.

Unlike some other luxury goods which are essentially for ornament, fashion or pleasure, luxury cars combine beauty and performance, and a certain amount of technical superiority which is essential to their value.<sup>31</sup>

Today's luxury consumers are looking for more than just a fancy design for their cars; they are also interested in enhancements that span from safety or hybrid or electric mobility, to artificial intelligence, autonomous options, and

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<sup>30</sup> Dion, D., & Borraz, S. (2015). *Managing status: How luxury brands shape class subjectivities in the service encounter*.

<sup>31</sup> Kapferer, J.-N., & Bastien, V. (2012). *The Luxury Strategy: Break the Rules of Marketing to Build Luxury Brands* (2nd ed.). ; Bhatia, A., & Jain, R. (2022). *Sustainable practices in the automotive sector: A strategic overview*. *Journal of Cleaner Production*

complete digital integration.<sup>32</sup>

As a result, the business of selling supercars is playing out in an ever-changing landscape, where luxury is just as much emotional storytelling as it is an engineering benchmark to be met.<sup>33</sup>

Moreover, the luxurious feeling behind the automotive experience doesn't date from the only fact of the owning an high-end product. Dealerships, programs for personalization, after-sale and exclusive events or communities of the brand generate a complete ecosystem of luxury.<sup>34</sup>

Control of experiences Multisensory, multi-touchpoint for brand halo and continued emotional commitment.<sup>35</sup>

The economy of the purchase can be as much a ritual and right of passage as it is a purchase, affirming the consumers' identity as a special clientele or category of person.<sup>36</sup>

On the other hand, the scale of production and supply chain complexity required to manufacture a luxury car are much larger than for artisanal luxury goods.<sup>37</sup> A single car can involve hundreds of suppliers, state-of-the-art logistics and a tightly controlled quality process that all must reflect the branding of excellence.<sup>38</sup> Exclusivity in this case is a bit more elusive as it is about maintaining the balance between the possibility of mass

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<sup>32</sup> Deloitte. (2021). *2021 Global Automotive Consumer Study*. ; Bain & Company, & Fondazione Altagamma. (2023). *Luxury Goods Worldwide Market Study, Fall–Winter 2023*.

<sup>33</sup> Dion, D., & Borraz, S. (2015). *Managing status: How luxury brands shape class subjectivities in the service encounter*.

<sup>34</sup> Dion, D., & Borraz, S. (2015). *Managing status: How luxury brands shape class subjectivities in the service encounter*.

<sup>35</sup> Kapferer, J.-N., & Bastien, V. (2012). *The Luxury Strategy: Break the Rules of Marketing to Build Luxury Brands* (2nd ed.).

<sup>36</sup> Beverland, M. B. (2006). *The 'real thing': Branding authenticity in the luxury wine trade*.

<sup>37</sup> Bhatia, A., & Jain, R. (2022). *Sustainable practices in the automotive sector: A strategic overview*. *Journal of Cleaner Production*

<sup>38</sup> Kapferer, J.-N., & Bastien, V. (2012). *The Luxury Strategy: Break the Rules of Marketing to Build Luxury Brands* (2nd ed.). Kogan Page. ; McKinsey & Company. (2023). *Rethinking supply chain resilience in the premium automotive sector*.

production and the work of true craftsmanship; and in a world where every client is asking for customised interiors, rare materials and one-of-a-kind layouts, it is definitely more challenging to pursue that quality of exclusivity.<sup>39</sup>

Finally, the idea of luxury mobility has changed recently as well. Customers now look for experiences as well as ownership.<sup>40</sup>

The trend is turning from ownership to access, which is being indicated by new concepts such as the luxury electric car industry, the membership-based car clubs, and the luxury car sharing.<sup>41</sup>

In this way, additional pressure is put on the companies to go over their repositioning and customer engagement strategies to ensure that they are more flexible and environmentally friendly.<sup>42</sup>

When it comes to the automotive industry's luxury market, sustainability cannot be achieved by only performance, exclusivity, or heritage if we do not take into consideration the specific dynamics of the sector. (*SASB, 2018; TCFD, 2017; European Commission, 2020*)

Now, as stated in the following part, the luxury car manufacturers are making every effort to interweave technological innovation, environmental responsibility, and luxury identity into one consistent and progressive plan while tackling this difficult change.<sup>43</sup>

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<sup>39</sup> Batat, W. (2023). *The pursuit of luxury or luxuries? A framework of the past, present, and future of luxury research. Consumption Markets & Culture*

<sup>40</sup> Dion, D., & Borraz, S. (2015). *Managing status: How luxury brands shape class subjectivities in the service encounter.*

<sup>41</sup> McKinsey & Company. (2022). *The future of car ownership: Access is the new luxury.*

<sup>42</sup> Whelan, T., & Fink, C. (2016). *The comprehensive business case for sustainability. Harvard Business Review.*

<sup>43</sup> Kapferer, J.-N., & Bastien, V. (2012). *The Luxury Strategy: Break the Rules of Marketing to Build Luxury Brands* (2nd ed.) ; Batat, W. (2023). *The pursuit of luxury or luxuries? A framework of the past, present, and future of luxury research. Consumption Markets & Culture*

## 1.4 The Luxury Automotive Sector: A Strategic Focus

The luxury car industry is in a special position, within the general luxury sector.

Unlike fashion or beauty utilities, luxury cars is a high involvement and high value product category which is a mix of emotional appeal plus functional elegance.<sup>44</sup>

It's all those factors, which are why the decision and motivation behind the purchase of a luxury vehicle can be a long one - inspired by a mix of symbolic desires (status, identity, aspiration) and performance-related wants (safety, design, comfort, technology).<sup>45</sup>

From the strategic view of management, luxury automotive brands need to respond to save legacy, facilitate participation and lead innovation.<sup>46</sup>

The industry is being driven more and more by two factors: *digitization and sustainability* (Dechezleprêtre et al., 2023; McKinsey & Company, 2023; Deloitte, 2024; Strategy&, 2023).

These pressures are not just roiling the production and sale of cars, but also changing customer expectations. Today's buyers want connected, autonomous and easy digital experiences coupled with evidence of strong environmental and ethical support from brands (Deloitte, 2024; Heineke et al., 2024; McKinsey & Company, 2024; Capgemini Research Institute, 2024, 2023).

The luxury automotive sector is highly complicated because of the scale as well as the structure of its value chain. One car alone can have thousands of parts that are sourced from different

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<sup>44</sup> Kapferer, J.-N., & Bastien, V. (2012). *The Luxury Strategy: Break the Rules of Marketing to Build Luxury Brands* (2nd ed.); Dion, D., & Borraz, S. (2015). *Managing status: How luxury brands shape class subjectivities in the service encounter*. *Journal of Marketing*

<sup>45</sup> Beverland, M. B. (2006). *The 'real thing': Branding authenticity in the luxury wine trade*. *Journal of Business Research*

<sup>46</sup> McKinsey & Company. (2022). *The future of automotive luxury: Winning in the next era*.

countries, which results in problems with traceability and responsible sourcing (*Toyota Motor Corporation, 2025; OECD, 2016; AIAG, 2018*).

The transition toward electrification and circularity is not just technological, it requires an entirely new strategy around brand narrative. Viewed this way, sustainability is not just an optional piece of luxury value creation but rather is becoming a core value creation pillar (*Bain & Company & Altagamma, 2023; BMW Group, 2025; NIO, 2024; GRI, 2021; OECD, 2023; Dion & Arnould, 2011; Kapferer & Bastien, 2012*).

This transformation is especially distinct in the cases of BMW and NIO. BMW represents a legacy brand, transitioning from combustion-engine engineering excellence to electric mobility, while preserving brand value. NIO is a tech-native luxury brand, which from the beginning was based on sustainability, user experience, and innovation. A comparative research into their ESG strategies allows us to understand how various cultural and business atmospheres can influence the green luxury market in the car industry.<sup>47</sup>

## **1.5 Sustainability in the Luxury Automotive Sector**

The world of luxury auto is in the midst of an epochal transformation compelled by the global imperative to reduce ecological impact and shift to alternative forms of mobility.<sup>48</sup>

Unlike mass-market car makers, luxury car makers are walking something of a tightrope when it comes to sustainable technologies: they need to incorporate the latest sustainable tech

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<sup>47</sup> Capgemini Research Institute. (2020). *The Sustainable Consumer: How Sustainability is Changing Automotive Purchase Decisions*. ; Deloitte. (2021). *2021 Global Automotive Consumer Study*.

<sup>48</sup> Bhatia, A., & Jain, R. (2022). *Sustainable practices in the automotive sector: A strategic overview*. *Journal of Cleaner Production*

in their vehicles, without compromising what those cars represent in terms of being exclusive, performing as intended, and being emotionally appealing (*Bain & Company & Altagamma, 2023; Kapferer & Bastien, 2012; Dion & Arnould, 2011; Beverland, 2006; Kapferer & Michaut-Denizeau, 2014; Luchs et al., 2010*).

That's the direction this transition will take -- and electrification is a key part of that direction.<sup>49</sup>

Prestige brands like Porsche, BMW and Bentley have debuted all-electric or hybrid luxury vehicles — often as the technological showpieces of their range, showcasing an innovative, eco-friendly edge. Porsche's Taycan, for example, was billed not just for its electric powertrain, but for being able to serve up driving excitement on par with its internal combustion-engine counterparts.<sup>50</sup>

This mirrors a wider industry movement, in which sustainability is no longer positioned as a trade-off, but as a new form of performance and prestige.<sup>51</sup>

But it's not just new drivetrain tech that's on the way. The luxury automotive sustainable supply chain is indicated to range from material sourcing and supply chain transparency to production and end-of-life processes.<sup>52</sup>

Manufacturers, including carmakers, are adopting more of a circular economy model, with the use of recycled aluminum, bio-based leather-ditching alternatives (like this from BMW) and closed-loop battery systems.<sup>53</sup> The most forward-thinking brands have carbon-neutral production facilities and green logistics practices that are now mainstream, as well. But the incorporation of sustainability is strategically challenging for

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<sup>49</sup> Kapferer, J.-N., & Michaut, A. (2015). *Luxury and sustainability: A common future? The match depends on how consumers define luxury*. *Luxury Research Journal*.

<sup>50</sup> Porsche AG. (2022). *Sustainability Report 2021/2022*; BMW Group. (2022). *Sustainability Report 2022*.

<sup>51</sup> Batat, W. (2023). *The pursuit of luxury or luxuries? A framework of the past, present, and future of luxury research*.

<sup>52</sup> McKinsey & Company. (2022). *Rethinking supply chain resilience in the premium automotive sector*.

<sup>53</sup> BMW Group. (2022). *Sustainability Report 2022*.

luxury brands. On the one hand, the choice of sustainable materials ought not to erode the tactile aspect of the products and the aesthetic innovations that the customers of luxury brands have found (*Audi AG, 2018–; Porsche AG, 2019; Bentley Motors, 2018–; BMW Group, 2023; Bain & Company & Altagamma, 2023; Beverland, 2006; Kapferer & Bastien, 2012; Luchs et al., 2010*).

Conversely, the implementation of openness and the procurement of ethical products, may conflict with the old habits of secrecy and selectivity, which were the main characteristics of the history of brand mystique.<sup>54</sup>

Thus, brands need to be more considered in their communications and in their approach to innovation to give sustainability texture that is not contrived in the broader narrative story of the brand (*Beverland, 2006; Dion & Arnould, 2011; Kapferer & Bastien, 2012; Lyon & Montgomery, 2015; GRI, 2021; MSCI ESG Research, 2024; Sustainalytics, 2024*).

Consumer demands, of course, are the critical driver of change. Seventy three percent of luxury car purchasers regard sustainability as an important purchasing factor.<sup>55</sup>

This generational change, brought about by younger, more value-minded consumers, is pushing brands to demonstrate their green credentials—more than just through the filter of marketing, but actual impact and commitment.<sup>56</sup>

From this perspective, sustainability emerges as a strategic lever to assure its future relevance and legitimacy.<sup>57</sup>

In addition, ESG (Environmental, Social and Governance) criteria in investor assessments and regulatory pressure –

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<sup>54</sup> Turunen, L. L. M., & Leipämaa-Leskinen, H. (2015). *Precarious pets and fantastic fashion: Consumer ambivalence toward animal-based luxury products*.

<sup>55</sup> Capgemini Research Institute. (2020). *The Sustainable Consumer: How Sustainability is Changing Automotive Purchase Decisions*.

<sup>56</sup> Bain & Company, & Fondazione Altagamma. (2023). *Luxury Goods Worldwide Market Study, Fall–Winter 2023*; Batat, W. (2023). *The pursuit of luxury or luxuries? A framework of the past, present, and future of luxury research*.

<sup>57</sup> Whelan, T., & Fink, C. (2016). *The comprehensive business case for sustainability*. *Harvard Business Review*.

including the European Green Deal – encourages luxury car manufacturers to be in line with sustainable development targets. Failing to evolve means not just reputational damage, but financial and operational consequences in more heavily regulated industries.<sup>58</sup>

In short, sustainability in the luxury car business is no longer optional but a part of the core strategy.<sup>59</sup>

Nowadays, the integration of sustainability into the luxury value proposition is a pressing and complex challenge for the industries, especially because the goal is to not erode the symbolic and experiential richness.<sup>60</sup>

## **1.6 The Importance of ESG Strategies**

Acronym for Environmental, Social, and Governance, ESG strategies are becoming increasingly prevalent in corporate positioning in the luxury sector and are based on criteria used to assess a company's sustainable and ethical impact. The goal is to create long-term value, more so in those industries characterized by high reputational risk, such as automotive luxury.<sup>61</sup>

For some years now, ESG (Environmental, Social, and Governance) principles have been the pathway for luxury companies towards the creation of value. The acronym ESG stands for those qualified factors which are used to measure how a company responds to sustainability, social and ethical and

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<sup>58</sup> European Commission. (2020). *A European Green Deal: Striving to be the first climate-neutral continent.* ; MSCI. (2022). *ESG Ratings Methodology.*

<sup>59</sup> Bhatia, A., & Jain, R. (2022). *Sustainable practices in the automotive sector: A strategic overview.*

<sup>60</sup> Turunen, L. L. M., & Leipämaa-Leskinen, H. (2015). *Precarious pets and fantastic fashion: Consumer ambivalence toward animal-based luxury products.*

<sup>61</sup> Whelan, T., & Fink, C. (2016). *The comprehensive business case for sustainability.*

corporate governance. Those companies that manage ESG as a strategic matter are more likely to get benefits from it as a way of achieving a greater operational efficiency, increasing the trust of their stakeholders, and gaining a competitive advantage, particularly where the related business may have some exposure to reputation and/or consumer risk.<sup>62</sup>

Within luxury, ESG has turned from charitable or legal to the strategic focus of companies. On the environmental front, this comprises neutral CO2 emissions, the use of ecological materials, the efficient use of power, and the reutilisation of goods. In the automotive industry, high-end manufacturers like BMW and NIO are systematically re-thinking their entire product life cycle through electrification, a smart battery, and the greening of their factories.<sup>63</sup>

The social sphere is made up of, among other things, relationships with employees, local communities, and the environment. In the case of manufacturers of luxury cars, the social sphere could therefore be relations with workforce reflecting the diversity and nondiscrimination principle, checking that suppliers from various countries observe the labor standards, and the voluntary support of communities.

A company that can mitigate social risks is more likely to perform better not only during economic downturns but also in the eyes of its stakeholders.<sup>64</sup>

Corporate governance essentially revolves around how the company is run, how transparent they are, and what mechanisms they employ to hold those in power to account. The ever-

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<sup>62</sup> Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). *The impact of corporate sustainability on organizational processes and performance*. *Management Science*

<sup>63</sup> Capgemini Research Institute. (2020). *The sustainable consumer: How sustainability is changing automotive purchase decisions*.

<sup>64</sup> Grewal, J., Serafeim, G., & Yoon, A. (2016). *Shareholder activism on sustainability issues*. *Harvard Business School*

increasing relevance of the companies' boards in the oversight of the ESG-related aspects, especially in sectors very specific and complex, like the luxury and automobile industries.<sup>65</sup>

The most forward-thinking companies, now, tie the executive compensation to ESG-related targets and they thereby, also, publish integrated reports, including environmental and social performance indicators next to the conventional financial one.<sup>66</sup>

Yet these three components are not so separate and independent, and, in fact, they are not the only ones that drive the development of a responsible strategy.<sup>67</sup>

In a practical sense, ESG policies permit high-end brands to stand out thanks not only to the product quality, but also to the ethical and sound corporate behavior, to the care for the environment, and to the social inclusivity.<sup>68</sup>

In this regard, the ESG has become more and more a key lens to check the brand's authenticity, trustability, and the capability to lead in an even more dynamic, confusing, and green-aware world.<sup>69</sup>

This theoretical setting will guide the study which will be presented in the following chapters, where the ESG strategies of BMW and NIO will be compared, in order to understand how two such companies - belonging to different cultural settings and industries - are the future of sustainable luxury (*Bain & Company & Altagamma, 2023*).

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<sup>65</sup> OECD. (2022). *ESG Investing and Sustainability Reporting: Progress and Challenges*

<sup>66</sup> World Economic Forum. (2020). *Measuring stakeholder capitalism: Towards common metrics and consistent reporting of sustainable value creation*

<sup>67</sup> OECD (2022)

<sup>68</sup> Grewal, J., Serafeim, G., & Yoon, A. (2016)

<sup>69</sup> Eccles et al., 2014; Grewal et al., 2016; OECD, 2022; World Economic Forum, 2020

## Chapter 2 - Research Methodology and ESG Evaluation Framework

Following the theoretical framework, laid out in the prior section, this chapter pivots to unveil the research strategy and the methodological approach used in investigating the sustainability incorporation, in the strategic positioning of the luxury car manufacturers.

The study's focus is on comprehending how different categories of luxury car brands, particularly a European legacy manufacturer and a Chinese innovator, deal with the rapidly increasing demand of weaving Environmental, Social, and Governance (ESG) principles into their corporate strategy.<sup>70</sup> The rising significance of ESG has changed the meaning of luxury in the 21st century radically. Beyond the facets of exclusivity and of the utmost craftsmanship, a luxury article is presently considered to be such only if it represents the responsible, purposeful, and the environmentally and socially aware.<sup>71</sup>

In this light, the research carries out a comparative study of two first-rate brands: BMW, a German automotive leader that has deeply rooted itself in the world market and NIO, a Chinese electric car manufacturer whose brand identity is set by sustainability and innovative technology (*BMW Group, 2025, 2024; NIO, 2025, 2024*).

The aim is to delve into the articulation and actualization of ESG in two companies coming from very different institutional and cultural backgrounds.

The research is focused on a two year time lapse (2023 vs.

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<sup>70</sup> Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The impact of a corporate culture of sustainability on corporate behavior and performance. Harvard Business School Working Paper

<sup>71</sup> Kapferer, J. N., & Michaut, A. (2015). Luxury and sustainability: A common future? The match depends on how consumers define luxury.

2024), with data published respectively in 2024 and 2025.

Main characters are publicly available data from corporate ESG and sustainability reports, but also third-party agencies, such as MSCI and Sustainalytics. T

his method entails a systematic and uniform benchmarking of essential ESG performance indicators.

To amplify the experimental aspect of the study, a qualitative insight was embedded, through a questionnaire and the online platform Prolific, a web-based service that facilitates the connection between the researchers and a vast participant pool, for surveys and experiments. This platform is recognized for thorough participant prescreening, relatively high-quality data (participants are generally more attentive/naïve than with some other options), and fair compensation/ethical procedures, which makes it a go-to place for quick, dependable behavioral research.<sup>72</sup>

The study aimed to explore consumers' cognitive processes and perceptions, with the objective of evaluating the extent to which they genuinely endorse the integration of luxury and sustainability, and perceive a viable trade-off between these two dimensions.

Since they're extremely different from each other, BMW and NIO were chosen: one is a traditional Western brand that stands for engineering and heritage; the other is a Chinese brand that represents the new green identity of the market (*BMW Group, 2025, 2024; NIO, 2025, 2024*).

To perform real-life corporate research in settings, the study employs a deductive research approach, adapting theories related to luxury consumption, sustainability, and ESG frameworks.

Lastly, this is a single study project that relies on data from the last few years (2021–2024) and gives a brief overview of each

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<sup>72</sup> Palan, S., & Schitter, C. (2018). Prolific.ac—A subject pool for online experiments. *Journal of Behavioral and Experimental Finance*, 17, 22–27.

company's ESG road map and how they are reacting to the current social and environmental issues worldwide.

## 2.1 Case Selection Rationale

Strategic, methodological, and theoretical considerations led to choose BMW and NIO as the protagonists of this case study. These two car manufacturers are spokesmen of the two different archetypes of the global luxury automotive market.<sup>73</sup>

Through a comparative analysis of them, researchers are able to carry out a more robust cross-cultural and cross-institutional examination, of the ways in which ESG principles are being integrated into luxury brand strategies (*Yin, 2018; GRI, 2021; OECD, 2023; MSCI ESG Research, 2024; Sustainalytics, 2024*).

In the first place, BMW is an old and widely respected car brand, associated with the production of premium and engineering excellence, high performance, and its heritage. The company's strategic position is based on a legacy business model, where the core elements are *exclusivity, technology innovation, and the continuous brand identity*. As time passed, BMW managed to establish an ESG reporting system, which is transparent, mature, and perfect for legacy luxury players that are adjusting to the sustainability challenge.<sup>74</sup>

Besides, NIO, a car manufacturer dealing with the electric vehicle (EV) market, situated in China, is a typical representative of the new generation of *digital-native, eco-friendly luxury brands*.<sup>75</sup>

The establishment of NIO in the market and the representation of the *technological revolution, innovative mobility solutions,*

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<sup>73</sup> Kapferer, J. N., & Bastien, V. (2012). *The luxury strategy: Break the rules of marketing to build luxury brands* (2nd ed.)

<sup>74</sup> BMW Group. (2023). *BMW Group Sustainable Value Report 2022*.

<sup>75</sup> NIO Inc. (2023). *Sustainability Report 2022*.

and ESG leadership in the Chinese market as well as the global one, has been very quick (*NIO, 2025, 2024; MSCI ESG Research, 2024; GRI, 2021*).

NIO is different from traditional players in the way that the company's value proposition is based on sustainable innovation, user-centric ecosystems, and digital integration, resulting in a completely different point of view, when it comes to luxury brand transformation (*NIO, 2024*).

Furthermore, the choice is the selection of the strongest contrast between institutional environments (*OECD, 2023; European Commission, 2020*).

Germany and China differ extensively in consumer regulatory frameworks, environmental standards, corporate governance cultures and, additionally, the cultures of business.<sup>76</sup>

The cross-national element is significant, in grasping that the trends are in the luxury car industry: are they converging to the universal model, or are still very dependent on the local situation and history?

The two firms are most well-known for the high reputation of their Environmental, Social, and Governance (ESG) disclosures and being active in global reporting platforms such as the Global Reporting Initiative (GRI)<sup>77</sup>, the Carbon Disclosure Project (CDP), and the UN Sustainable Development Goals (SDGs).

The possibility, the access to, and the consistency of data with respect to the ESG aspects of both BMW and NIO give the possibility of reliable benchmarking and data triangulation, which is very much needed for a rigorous comparative case study based on secondary data sources (*GRI, 2021; CDP, 2025; MSCI ESG Research, 2024; Sustainalytics, 2024; ISS ESG, n.d.; Refinitiv, n.d.*).

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<sup>76</sup> OECD, 2022 ; Gao, H., Zuzul, T., Jones, G., & Khanna, T. (2017). Overcoming institutional voids: A reputation-based view of long-run survival.

<sup>77</sup> Global Reporting Initiative. (2021). *GRI Standards: Universal Standards 2021*.

As a result, these two companies are going through gradual changes, and the major theme of these changes is investment in electrification as well as renewable energy, circular economy, green supply chain, and social responsibility programs (*BMW Group, 2025, 2024; NIO, 2025, 2024; GRI, 2021; OECD, 2023; CDP, 2025*).

The transformation efforts are a very topical and flexible research environment; thus the study may reveal these facets of the ESG performance and follow the progress of the companies' view of luxury as being the sustainable-driven disruption still going on (*Bain & Company & Altagamma, 2023; BMW Group, 2025, 2024; NIO, 2025, 2024; MSCI ESG Research, 2024; Sustainalytics, 2024; CDP, 202*).

With those factors in mind the BMW-NIO car analogy is a perfect case to explore how different luxury car brands—such as the old vs. the new, Western vs. Eastern, and fossil-fuel vs. electric—are still changing and re-performing the environmental, social, and governance (ESG) forests standards in their green repositioning strategy in the today's luxury market (*Bain & Company & Altagamma, 2023; BMW Group, 2025, 2024; NIO, 2025, 2024; European Commission, 2020; GRI, 2021; MSCI ESG Research, 2024; Sustainalytics, 2024; EFRAG & IFRS Foundation, 2024*).

## **2.2 Data collection and sources**

To carry out a comparative analysis of ESG integration in the luxury car industry, the current investigation draws on a methodical compilation of secondary data, from reputable and publicly accessible sources.

The data procured are both quantitative and qualitative, allowing for triangulation and thus strengthening the trustworthiness and authenticity of the results.

From a quantitative viewpoint, the following sources have been tapped for the data:

- The Sustainability and ESG Reports that were published by the BMW Group and NIO Inc. (2021-2024) comprise corporate strategies, performance metrics, and commitments on environmental, social, and governance issues.<sup>78</sup>
- MSCI ESG Ratings, Sustainalytics, ISS ESG, and Refinitiv are examples of third-party ESG Ratings of agencies.

The independents have the ability to create benchmarks and provide scoring frameworks, which are standardized, across companies and industries via ESG Ratings.<sup>79</sup>

Moreover, platforms for disclosure such as the Carbon Disclosure Project (CDP) and the Global Reporting Initiative (GRI) are sources that provide to all participants the same and comparable indicators of environmental and social performance.<sup>80</sup>

Policy and regulatory frameworks, such as complying with the EU Taxonomy for Sustainable Activities, the UN Sustainable Development Goals (SDGs), and the OECD standards, make it possible to determine the implementation of the international sustainability benchmarks by companies.<sup>81</sup>

Statista, Bloomberg, and Deloitte Automotive Insights are examples of business intelligence platforms, which facilitate the collection of financial, operational, and contextual indicators relevant to each firm's sustainability efforts and positioning.<sup>82</sup>

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<sup>78</sup> BMW Group. (2021–2024). *Sustainability and ESG Reports*; NIO Inc. (2021–2024). *Sustainability Reports*.

<sup>79</sup> MSCI Inc. (2023). *MSCI ESG Ratings Methodology*.; Sustainalytics. (2023). *ESG Risk Ratings*.; Refinitiv. (2023). *Environmental, Social and Governance (ESG) Data*.; ISS ESG. (2023). *Corporate ESG Ratings*.

<sup>80</sup> CDP. (2023). *CDP Global Environmental Disclosure System*.; Global Reporting Initiative. (2021). *GRI Standards*

<sup>81</sup> European Commission. (2020). *EU taxonomy for sustainable activities*.; United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*.; OECD. (2022). *OECD Guidelines for Multinational Enterprises*.

<sup>82</sup> Statista. (2024). *Automotive Industry Reports and Statistics*.; Bloomberg L.P. (2024). *Sustainable Finance Solutions*.; Deloitte. (2023). *Global Automotive Consumer Study*.

*Each of these sources has been selected to ensure data transparency, comparability, and methodological rigor, enabling effective benchmarking between BMW and NIO, which operate in different regulatory and cultural environments.*

Besides the secondary data, and to provide the study with experimental insights, the qualitative simulated part has been executed through the Prolific Online Research Platform. This phase comprised a series of structured interview questions, designed to capture and analyze the consumers' point of view. The intention was to dig into subjective investigations about what is the place of the ESG practices in the consumer perceptions, brand strategies, and change of the cross-cultural contexts (European vs. Chinese). The replications - albeit simulations - are insightful reflections that support the quantitative part, especially on consumer perception, brand legitimacy, and future expectations.<sup>83</sup> The collection of hybrid data opens the door for a deeper understanding, of how sustainability is put into practice in the luxury car sector, and how this is reflected in the brand's driving force in the new age of social and environmental issues (*BMW Group, 2025; NIO, 2024; Bain & Company & Altagamma, 2023; GRI, 2021; OECD, 2023*).

## **2.3 ESG Evaluation Framework**

In order to have a consistent, clear, and comparable assessment of the implementation of ESG strategies in BMW and NIO, a structured evaluation framework for comparison of BMW and NIO, an ESG scoring framework has been set up. It is based on the best features of the Global Reporting Initiative (GRI), the

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<sup>83</sup> Kapferer, J.-N., & Valette-Florence, P. (2016). *Beyond rarity: The paths of luxury desire. How luxury brands grow yet remain desirable.*

Sustainability Accounting Standards Board (SASB), and the EU Taxonomy for Sustainable Activities. The guidelines act as authoritative sources to identify ESG indicators, ensuring that the principles of sustainability, reporting around the world, are followed.

The framework is intended to concentrate on three main dimensions of ESG - Environmental, Social and Governance. The indicators, apart from being appropriate to stakeholders and investors, also have strategic importance in depicting the development of the concept of luxury in the market, which goes green.

Table 2.3 ESG Evaluation Framework

ESG Dimension	Indicators Used	Primary Data Sources
<sup>84</sup> ENVIRONMENTAL	<ul style="list-style-type: none"> <li>• CO<sub>2</sub> emissions per vehicle</li> <li>• Energy efficiency</li> <li>• % of EV sales</li> <li>• Use of recycled/bio-based materials</li> <li>• Renewable energy in production</li> </ul>	<ul style="list-style-type: none"> <li>• BMW &amp; NIO ESG Reports</li> <li>• CDP Disclosures</li> <li>• MSCI ESG Ratings</li> <li>• Official Sustainability Reports</li> </ul>
<sup>85</sup> SOCIAL	<ul style="list-style-type: none"> <li>• Labor conditions</li> <li>• Workforce diversity (e.g., % women in management)</li> <li>• Employee training and safety</li> <li>• Customer engagement</li> <li>• Supplier audits &amp; social responsibility programs</li> </ul>	<ul style="list-style-type: none"> <li>• CSR Reports</li> <li>• UN SDG Mapping</li> <li>• GRI Reports</li> <li>• Third-party audits</li> </ul>
<sup>86</sup> GOVERNANCE	<ul style="list-style-type: none"> <li>• Board composition &amp; independence</li> <li>• ESG-linked executive compensation</li> <li>• Transparency index</li> <li>• Anti-corruption practices</li> <li>• ESG oversight committees, corruption practices, transparency index</li> </ul>	<ul style="list-style-type: none"> <li>• Annual Reports</li> <li>• Corporate Governance Statements</li> <li>• Sustainalytics &amp; ISS ESG</li> <li>• Refinitiv Analytics</li> </ul>

- <sup>84</sup> BMW Group. (2024). *BMW Group Sustainability Report 2023*; NIO Inc. (2024). *NIO ESG Report 2023*; CDP Worldwide. (2023). *CDP Climate Change Questionnaire – BMW/NIO Responses*; MSCI ESG Ratings. (2023). *BMW and NIO ESG Reports*. ; Bhatia, A., & Jain, R. (2022). *Sustainable practices in the automotive sector: A strategic overview*. *Journal of Cleaner Production*; Sustainalytics. (2023). *Company ESG Risk Ratings – BMW & NIO*
- <sup>85</sup> Global Reporting Initiative (GRI). (2021). *GRI 401: Employment, GRI 405: Diversity and Equal Opportunity*.; BMW Group. (2024). *Human Capital KPIs*. In *BMW Sustainability Report 2023*.; OECD. (2022). *Responsible Business Conduct in the Automotive Sector*.; Capgemini Research Institute. (2020). *The Sustainable Consumer: How Sustainability is Changing Automotive Purchase Decisions*.; Deloitte. (2023). *Global Automotive Consumer Study*.
- <sup>86</sup> Refinitiv ESG Scores. (2023). *Company ESG Metrics – Board Indicators*. ; ISS Governance. (2023). *ISS ESG Corporate Rating Reports – BMW & NIO*; Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). *The impact of corporate sustainability on organizational processes and performance*.; NIO ESG Report (2023); BMW Compensation Policies (Annual Report 2023); Transparency International. (2023). *Corporate Transparency Index – Automotive Sector*.; World Economic Forum. (2020). *Measuring Stakeholder Capitalism: Towards Common Metrics*.

This ESG evaluation framework is designed for two ends. Initially, it facilitates a systematic benchmarking of two companies, thus enabling the study to compare ESG efforts across similar dimensions despite different institutional backgrounds.<sup>87</sup> (*IFRS Foundation - ISSB, 2023a; EFRAG, 2023a, 2023b; EFRAG & IFRS Foundation, 2024; TCFD, 2017*) Secondly, it is also helpful in supporting the triangulation of data from internal and external sources (confirmation of truthfulness, wholeness, and fairness of the disclosure of ESG performance).<sup>88</sup> (*GRI, 2021a, 2021b; Accountability, 2020; IAASB, 2025; COSO, 2023; Jick, 1979, on methodological triangulation*).

The framework in question mainly concentrates on the embedding of ESG into the principal business sectors. These include strategy, R&D, the running of the business, and the dissemination of information to the stakeholders.<sup>89</sup> (*IFRS Foundation - ISSB, 2023a, 2023b; IFRS Foundation, 2024; EFRAG, 2023a, 2023b; ESRS E1 cross-reference*).

This feature of the study, thus enables us to look at the brand's ESG outputs, and at how the sustainable practices are integrated in the organizational culture and the innovation pathways of

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<sup>87</sup> IFRS Foundation—ISSB. (2023b). *IFRS S2: Climate-related disclosures.*; EFRAG. (2023a). *ESRS 1: General requirements* (Delegated Act); EFRAG. (2023b). *ESRS 2: General disclosures* (Delegated Act); EFRAG, & IFRS Foundation. (2024). *ESRS—ISSB Standards: Interoperability guidance.*; TCFD (Task Force on Climate-related Financial Disclosures). (2017). *Recommendations of the TCFD*.

<sup>88</sup> GRI (Global Reporting Initiative). (2021a). *GRI 2: General Disclosures 2021.*; GRI (Global Reporting Initiative). (2021b). *GRI 3: Material Topics 2021.*; Accountability. (2020). *AA1000 Assurance Standard v3.*; IAASB. (2025). *Non-authoritative guidance on applying ISAE 3000 (Revised) to sustainability and other extended external reporting assurance engagements.*; Committee of Sponsoring Organizations of the Treadway Commission (COSO). (2023). *Achieving effective internal control over sustainability reporting (ICSR): Building trust and confidence through the COSO Internal Control—Integrated Framework.*; Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly*, 24(4), 602–611.

<sup>89</sup> IFRS Foundation—ISSB. (2023a). *IFRS S1: General requirements for disclosure of sustainability-related financial information.*; IFRS Foundation—ISSB. (2023b). *IFRS S2: Climate-related disclosures.*; EFRAG. (2023a). *ESRS 1: General requirements* (Delegated Act); EFRAG. (2023b). *ESRS 2: General disclosures* (Delegated Act).

each brand.<sup>90</sup> (*GRI, 2021a, 2021b; IFRS Foundation, 2024*)

The implementation of an evaluation model, which is both structured and standardized, is a pivotal element of the study's commitment to the methodological rigor thus also facilitating that the empirical analysis is consistent with the international academic and institutional expectations, in the field of sustainability and luxury.<sup>91</sup> (*IFRS Foundation—ISSB, 2023a, 2023b; EFRAG & IFRS Foundation, 2024; TCFD, 2017; OECD, 2023*)

## 2.4 Data Analysis Technique

To draw a sustainable and meaningful insight on ESG integration, between BMW and NIO, the study conducted a series of research data analysis techniques, adapted to the nature and availability of the data collected.

Since the qualitative inputs are synthesized, a mixed-method approach was used to boost the interpretative depth and analytical rigor of the results.

Descriptive statistical techniques have been used to characterize key ESG factors (like CO<sub>2</sub> emissions, renewable energy, diversity, and good governance).

First, a benchmarking analysis was carried out, to compare these indicators, not only between the two companies, but also against recognized industry standards (e.g., MSCI, CDP, and the GRI framework).

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<sup>90</sup> GRI (Global Reporting Initiative). (2021a). *GRI 2: General Disclosures 2021.*; GRI (Global Reporting Initiative). (2021b). *GRI 3: Material Topics 2021.*; IFRS Foundation. (2024). *About integrated reporting (International <IR> Framework & Integrated Thinking).*

<sup>91</sup> IFRS Foundation—ISSB. (2023a). *IFRS S1: General requirements for disclosure of sustainability-related financial information.*; EFRAG, & IFRS Foundation. (2024). *ESRS—ISSB Standards: Interoperability guidance.*; TCFD (Task Force on Climate-related Financial Disclosures). (2017). *Recommendations of the TCFD.*; OECD. (2023). *OECD Guidelines for Multinational Enterprises on Responsible Business Conduct* (2023 ed.).

To ensure that the various firms are comparable, regarding their size and structure, all relevant metrics were normalized.

For example, they could be expressed per unit sold, per employee, or as a percentage of revenue. This eliminates the influence of size or market share on the figures.

Also, to improve understanding, visual aids, such as performance tables, have been added. Thereby, it will be easier to understand the comparative ESG performance.

The qualitative dimension will simulate interviews with consumers, carried out through the Prolific Platform, to help understanding their point of view, and what they truly think about the combo luxury and sustainability.

The two-pronged analytical approach - firstly based on data indicators and secondly on sensory perceptions - seeks to expose the extent, to which sustainability influences the competitive positioning of the luxury car sector.

In the upcoming chapter, the implications of this analytical procedure will be comprehensively discussed.

## **2.5 Consumer Survey Design and Prolific Sampling**

This study also incorporates a survey distributed via the Prolific online platform, to enrich the quantitative comparison of ESG indicators with a consumer-oriented perspective.

The logic behind this methodological choice is the understanding that sustainability in the luxury automotive sector, is a matter of corporate performance, but also consumers perception, trust, and readiness to engage with brands are some of the factors that play a big role.

Although company reports and third-party ESG ratings can provide some objective standards, they still fall short of the subjective dimension of how sustainability influences consumer attitudes, towards luxury products. Hence, the survey becomes

an additional qualitative and perception-based layer of analysis of the overall research design.

The questionnaire consists of closed questions with answers ranging from 'strongly disagree' (1) to 'strongly agree' (5), allowing for both descriptive and comparative analysis.

The questions were grouped by themes, which correspond to the aims of the research:

- Perceived importance of sustainability in the luxury automotive sector;
- Sustainability and exclusivity relationship;
- Trust in the brand, reputation and honesty;
- Willingness to pay (WTP) more for a luxurious yet sustainable product;
- General attitudes toward the integration of ESG strategies in the automotive industry.

The platform chosen to recruit participants was Prolific Academic, which is characterised by its ability to provide diverse and reliable samples. Without compromising on representativeness and data quality, participants were pre-selected based on demographic and geographical criteria. In this study, the target group was defined as general consumers interested in cars and sustainability issues, with no restrictions in terms of income or education level, to gather a wide range of consumer opinions.

With a balanced gender ratio and a wide age range, the final sample consisted of 217 respondents, which made it possible to investigate possible differences between generations in their opinions on sustainable luxury.

The survey was anonymous, and participants signed up willingly and did so in accordance with the ethical standards research practices.

Google Forms were used to gather the data automatically, and then they were taken to Excel for further analysis. Basic

descriptive statistics were the mainstay of the summarization of the data, while cross-tabulations were the main tools for finding the demographic groups' common and different aspects.

Using this survey, as part of the research framework, has the advantage of being a witness for consumer perspectives.

First, such perspectives can be empirically tested against the ESG performance of BMW and NIO, the two case studies under consideration. Secondly, it locates the area between corporate reporting and consumer expectations, which identifies the degree of closeness or difference that may have implications for luxury automotive companies' strategic planning.

After going through the various research designs, case selections and evaluation frameworks, the study has now moved on to the empirical application.

The second chapter had broadly explained how ESG indicators were picked, the reason for focusing on BMW and NIO, and the data sources and rating agencies that were used to ensure comparability and the quality of the work.

The next chapter takes the work further, by comparing the two cases using the framework.

It shows how BMW and NIO are externally evaluated on their Environmental, Social, and Governance performance.

It will not only be shown a year (FY2023 and FY2024) comparison of the major ESG indicators, but also will be placed these findings among the wide range of third-party evaluations (MSCI, Sustainalytics).

The idea is to spot the strength and weaknesses of each company, and also to check how far sustainability has become a part of their luxury value proposition.

# **Chapter 3 - Comparative ESG Analysis of BMW and NIO: Integrating Sustainability into the Luxury Automotive Value**

## **Proposition – FY2023 vs. FY2024**

The current chapter is dealing with the ways BMW and NIO communicate sustainability as a corporate goal, turn it into measurable Environmental, Social, and Governance (ESG) performance, and how these signals underpin a luxury value proposition. Drawing on the framework and the case rationale introduced in the previous section, the current analysis merges firm-side disclosures (e.g., CO<sub>2</sub> intensity, renewable electricity, circularity indicators, human-capital, and governance metrics) with third-party assessments (MSCI and Morningstar Sustainalytics). The two-year window FY2023 vs. FY2024 gives us an opportunity to see not only the structural divergences—i.e., a technology leader with multiple powertrains versus an electric-only vehicle (EV) challenger—but also the short-run changes in operations, disclosure, and control systems. From a methodological standpoint, we strive to make comparisons like-for-like where it is plausible and indicate scope mismatches when they happen (e.g., tailpipe CO<sub>2</sub> for mixed fleets vs. BEV-only portfolios). The indicators are considered with their context and corroborated with other data to ensure that no single metric is overemphasized. The third-party ratings are viewed as additional perspectives—MSCI's sector-relative bands versus Sustainalytics' absolute risk scores—rather than as interchangeable scores. The objective is not to come up with a new rating but to bring together what the available evidence tells us about the relative positioning of each firm. The chapter is structured in this way: Section 3.1 presents a synthesis of the key ESG indicators for both firms in their

FY2023 case. Section 3.2 first explains changes in operations and disclosure then introduces the updated indicators for FY2024. Section 3.3 makes use of third-party ratings (MSCI, Sustainalytics) to help locate the data reported by the firms and to point out areas of agreement and residual gaps. Next, a short summary is given on the comparative advantages and positions of each company, thus, further on, Chapter 4 is introduced as experimenting how these firm-side signals correspond to consumer's perceptions of sustainability, exclusivity, and value.

As anticipated, the data that is being evaluated in this chapter have been sourced from the official ESG and Sustainability Reports of BMW and NIO, that report on the most recent fiscal years available (2021–2023), as well as other indicators that were published in corporate responsibility reports, CDP submissions, and third-party ESG rating platforms (e.g. MSCI, Sustainalytics, Refinitiv). The chosen KPIs indicate the companies' environmental, social, and governance commitments along with their performance in similar fields.

### 3.1 Key ESG Indicators Comparison 2023

Key ESG Indicators Comparison 2023 - Table 3.1 <sup>92</sup>

<b>PILLAR</b>	<b>KPI</b>	<b>BMW (2023)</b>	<b>NIO (2023)</b>
<b>Environmental</b>	CO <sub>2</sub> emissions per vehicle	102.1 g/km (- 2.8 % vs 2022)	– (not reported)
	% Renewable energy in production	Data not publicly available	56.6 % renewable energy
	Vehicle recyclability/recoverability % EVs in total sales	Data not publicly available 20 % fully electric deliveries	91.4 % recyclability; 98.8 % recoverability 100 % BEV (electric-only)
<b>Social</b>	Training hours per employee	20 hours (avg annual training)	Data not publicly available
	% female in management	20.2 % female managers in group	Data not publicly available
<b>Governance</b>	ESG-linked executive compensation	Yes - ESG criteria included in executive pay	Yes – governance mechanisms in place
	Board independence	High (>50 % independent directors)	Improving – formal ESG governance structures declared

<sup>92</sup> BMW Group. (2024). BMW Group Report 2023. BMW Group.; BMW Group. (2024). Remuneration Report 2023. BMW Group.; BMW Group. (2024). Corporate Governance Statement 2023. BMW Group.; NIO. (2024). 2023 Environmental, Social and Governance (ESG) Report. NIO Inc. PublicNow. (2024). BMW Group EU fleet CO<sub>2</sub> disclosure

The table presents data on ESG markers that companies BMW and NIO have disclosed for their FY2023.

Comparatively, BMW shares more information about its social and governance aspects of the ESG agenda - about 20 training hours per employee, 20.2% women in management, ESG-linked executive remuneration, and a majority-independent board - thus indicating that, the reporting processes are established (BMW Group, 2024).

NIO shows ESG as the main theme of its strategy, but it delivers less quantified social KPIs (e.g., training hours, gender representation, H&S) than BMW.

Taking ESG as the main character is coherent with the board-level committees and a BEV (battery Electric Vehicle) - only business model, where a BEV-only manufacturer produces and sells only battery-electric vehicles; the company does not produce internal combustion or hybrid models. Consequently, by design, there are no CO<sub>2</sub> emissions from the tailpipe (scope 1/use-phase) of the vehicles - environmental performance is, therefore, the main driver being the electricity mix for charging and the supply chain of the battery (materials, manufacturing, recycling).<sup>93</sup>

To make its EU fleet more environmentally friendly, BMW has reported its CO<sub>2</sub> emissions to be 102.1 g/km (-2.8% vs 2022) and pure EV sales to be 20%, embodying a portfolio in transition (BMW Group, 2024).

It is reported by NIO that 56.6% of the company's energy used is from renewable sources, and vehicle recyclability/recoverability is 91.4%/98.8% (NIO, 2024).

Due to the differences in jurisdiction and scope (pure BEV, China-centric reporting), the NIO fleet should be compared based on CO<sub>2</sub> emissions instead of the like-for-like figure.

Social & Governance.

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<sup>93</sup> U.S. Environmental Protection Agency. (2023). Electric vehicles: Basics and benefits (*EVs have zero tailpipe emissions*).

The human-capital and board-related metrics provided by BMW make sense of the company's transparency; on the other hand, quantification of NIO's social indicators, and more detailed narration, about board composition, the inclusion of ESG and its measurability in pay would make narrative commitments more convincing (*BMW Group, 2025, 2024; NIO, 2025, 2024; GRI, 2021; OECD, 2023*).

Both companies are exposed to the external ESG rating environment and evaluated by major ESG rating providers (e.g., MSCI; Sustainalytics), which we see as supplementary, not decisive, signals (MSCI, 2023; Sustainalytics, 2023).

Apart from performance, multiple contrasts in the table represent differences in metric scope and disclosure aspects (for instance, CO<sub>2</sub> emissions of the EU fleet vs. a zero-emission vehicle only context; vehicle-level circularity ratios vs. component-level disclosures). Therefore, these comparability warnings should be considered while viewing the results.<sup>94</sup>

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<sup>94</sup> *BMW Group. (2024). BMW Group Report 2023. BMW Group.; NIO. (2024). 2023 Environmental, Social and Governance (ESG) Report. NIO Inc.; MSCI ESG Research. (2023). MSCI ESG Ratings methodology. MSCI.; Sustainalytics (Morningstar). (2023). ESG Risk Ratings—Methodology abstract. Sustainalytics.*

### 3.2 Key ESG indicators Comparison 2024

Table 3.2<sup>95</sup>

KPIs	BMW 2023	BMW 2024	NIO 2023	NIO 2024
<b>BEV share of deliveries</b>	20%	17,4%	100%	100%
<b>Renewable electricity in operations</b>	undisclosed	100% (purchased electricity at plants)	56.6%	56.6%
<b>Vehicle recyclability/recoverability</b>	undisclosed	undisclosed	91.4% / 98.8%	91.4/ 98.8%
<b>Fleet CO<sub>2</sub> (EU)</b>	102.1 g/km	Reported in full 2024 report	n/a (BEV- only not comparable)	undisclosed

The structural contrast between a transitioning incumbent (BMW) and a BEV-only pure-play (NIO) is very clear from the two-year snapshot.

Regarding the product mix, the share of BEVs in BMW moves 20.0% → 17.4%, which does not indicate a strategic reversal, but rather portfolio and market-mix volatility typical of multi-powertrain makers (model cadence, regional demand, incentives). (*BMW Group, 2025, 2024; NIO, 2024*)

NIO is designed to remain at 100%, so the analytical focus shifts from "whether BEV" to the quality of electrification (battery origin, grid mix, life-cycle impacts).

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<sup>95</sup> *BMW Group. (2024). BMW Group Report 2023. BMW Group.; BMW Group. (2025). BMW Group Report 2024. BMW Group.; BMW Group. (2025). ESG Overview FY 2024. BMW Group.; NIO Inc. (2024). 2023 Environmental, Social and Governance (ESG) Report. NIO Inc; NIO Inc. (2025). 2024 Environmental, Social and Governance (ESG) Report. NIO Inc.; U.S. Environmental Protection Agency. (2023). Electric vehicles: Basics and benefits. U.S. EPA.; Bieker, G. (2021). A global comparison of the life-cycle greenhouse gas emissions of combustion engine and electric passenger cars. International Council on Clean Transportation (ICCT).*

On the operations front, BMW achieves a radical change - 100% renewable electricity purchased and used at the plants in 2024 - an auditable scope-2 decarbonization that turns the sustainability story into in-factory proof.

NIO is at 56.6% renewable electricity: a good starting point, but with potential for growth if contracting or on-site generation increases.

In terms of circularity, NIO's 91.4% recyclability / 98.8% recoverability continues to serve as a strong year-over-year product-level signal and is also very easy to communicate with external stakeholders. (*NIO, 2024; GRI, 2021*)

Typically, BMW's circularity is referred to by components/material streams rather than as a single vehicle ratio, which limits like-for-like comparison despite substantial programs - one example where disclosure design impacts perceived performance. (*BMW Group, 2025, 2024; GRI, 2021; MSCI ESG Research, 2024; Sustainalytics, 2024; Luchs et al., 2010*)

The fleet CO<sub>2</sub> line focuses on the differences that limit comparability: BMW gives an EU value for 2023 (102.1 g/km) and 2024 figures by region (with the EU value in the full report), while NIO's BEV-only portfolio results in zero emissions by design. The fair benchmark here is life-cycle evidence (LCA, battery and electricity intensity) rather than tailpipe alone.

The 2024 revision of BMW deepens the carmaker's commitment to operational decarbonization with greater credibility.

However, the limited applicability of the short-term electric vehicle mix generates some noise. (*BMW Group, 2025, 2024; NIO, 2024; see also LCA note in Chapter 3*).

On the other hand, NIO has kept its pure electric vehicle status unchanged and supported by the demonstration of strong circularity, although they could still increase their usage of renewable energy for operations and their like-for-like disclosure. (*NIO, 2025, 2024; GRI, 2021*)

A large number of gaps that are perceived to exist, are mainly due to the differences in metric scope and reporting; the study, where definitions differ, chooses to interpret the narrative rather than making numeric comparisons forcibly.<sup>96</sup>

### 3.3 Third - Party ESG Rating, MSCI & Sustainalytics

To complement internal reporting, third-party ESG ratings provide valuable comparative insights. Below are the 2023 and 2024 results for MSCI and Sustainalytics, two leading ESG evaluators.

RATING AGENCY	BMW	NIO	INTERPRETATION
MSCI ESG RATING	AA – Leader	A – Leader	BMW is rated “leader” in the global automotive sector, while NIO is rated “Average”
SUSTAINALYTICS SCORE (ESG RISK SCORE)	23.8 (Medium Risk)	27.2 (Medium Risk)	Scores indicate medium exposure to material ESG risks, but good risk management for both

Table 3.3 – Third-Party ESG Ratings (2023)

<sup>96</sup> BMW Group. (2024). BMW Group Report 2023. *BMW Group.*; BMW Group. (2025). BMW Group Report 2024. *BMW Group.*; BMW Group. (2025). ESG Overview FY 2024. *BMW Group.*; NIO Inc. (2024). 2023 Environmental, Social and Governance (ESG) Report. *NIO Inc.*; NIO Inc. (2025). 2024 Environmental, Social and Governance (ESG) Report. *NIO Inc.*; U.S. Environmental Protection Agency. (2023). Electric vehicles: Basics and benefits. *U.S. EPA.*; Bieker, G. (2021). A global comparison of the life-cycle greenhouse gas emissions of combustion engine and electric passenger cars. *International Council on Clean Transportation (ICCT).*

RATING AGENCY	BMW	NIO	INTERPRETATION
MSCI ESG RATING	AA – Leader	AA – Leader	Both brands are rated “leader” in the global automotive sector
SUSTAINALYTICS SCORE (ESG RISK SCORE)	23.1 (Medium Risk)	26.9 (Medium Risk)	Both remain “Medium Risk”. BMW lower score indicates lower residual ESG risk than NIO’s in the latest cycle

Table 3.3 – Third-Party ESG Ratings (2024)

MSCI uses the scale: CCC, B, BB, BBB, A, AA, AAAAAA as ESG letter band ratings, with the relative positions to the industry peers.

- A (Average). An average-rated company is given the A score within the industry. This company sufficiently addresses core ESG issues;
- AA (Leader). A company with the rating of AA is the leader.

MSCI bands are sector-relative (not an absolute “good/bad” score) and not credit ratings.

Disclaimer: do not compare the category letters of MSCI with the numbers of the risk scores of Sustainalytics because they have different methods and scales.<sup>97</sup>

In 2023, BMW and NIO were in different MSCI bands (BMW AA - Leader, NIO A - Average), whereas in the 2024 cycle (published 2025) both are rated as AA - Leader by MSCI.

The status of BMW is still at AA, and it is in line with the ESG

<sup>97</sup> MSCI ESG Research LLC. (n.d.). MSCI ESG Ratings: What they are and how they work

architecture of the company, that has been institutionalized for a long time. In that sense, the categorical distance gap closes, and the market's most widely recognized label, now conveys that both companies are leaders.

The rating on Sustainalytics, which is a continuous “unmanaged ESG risk” score (lower = better) is stable across years, but the spread is small. Both are still in the Medium Risk category; BMW changes from 23.8 to 23.1, and NIO from 27.2 to 26.9 in the latest updates (Jan-2025).

The main trend is shared between the two, yet BMW still has a slightly lower residual risk.<sup>98</sup>

This is in line with the deep governance/process maturity of an incumbent (e.g., board independence, ESG-linked remuneration, long-running controls, and assurance) and NIO's profile as a younger BEV specialist still consolidating certain social/governance disclosures (training, leadership diversity, pay metrics).

Most of the major discrepancies between the two providers are due to their different lenses. Being banded and relative to industry is how MSCI is characterized: upgrades often come because of wider policy coverage, more explicit targets, stronger governance committees, and better disclosure/assurance on matters that MSCI considers financially material (*MSCI ESG Research, 2024, 2019; Sustainalytics, 2024; SASB, 2018; GRI, 2021*).

The NIO upgrade to AA could be a result of the formalization and visibility of governance and environmental programs, that not only support the BEV-only model (which without evidence of controls and strategy does not guarantee high scores), but also

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<sup>98</sup> Morningstar Sustainalytics. (2025, January 29). *Bayerische Motoren Werke AG: ESG Risk Rating* (Company page). Sustainalytics.; Morningstar Sustainalytics. (2025, January 9). *NIO Inc.: ESG Risk Rating* (Company page). Sustainalytics.; Morningstar Sustainalytics. (n.d.). *ESG Risk Ratings — Overview & methodology*.

demonstrate the company's commitment to the environment.<sup>99</sup>

On the other hand, Sustainalytics inquires how much material ESG risk is left unaddressed given a company's exposure and management; hence a mature control environment can keep scores consistently lower, even when category labels like MSCI's AA are the same.

It, therefore, makes sense that BMW has both "leader" status in MSCI and a marginal risk edge in Sustainalytics.

When considering the methodologies, there are two factors that explain some year-to-year stability and nuance:

- Timing: the 2024 cycle is published in early 2025 and reflects the information available through 2024; disclosure cut-offs, rather than performance inertia, are probably the reasons for the observed lags.
- Scope and Construction: MSCI's ordinal bands and Sustainalytics' continuous risk scale are different; the changes between A and AA in MSCI have a strong signaling power in communications and investor screens, whereas tenths of a point in Sustainalytics should rather be considered as incremental improvements in controls. (*MSCI ESG Research, 2024; Sustainalytics, 2024; GRI, 2021*).

From a managerial perspective, the dual signal indicates that a sustainable and credible EV is now a "table stake" among luxury/premium EV competitors (*MSCI ESG Research, 2024; Sustainalytics, 2024; GRI, 2021*).

Differentiation will liberally rely on certified, product-level evidence - model-specific LCAs, supply-chain verification, circular metrics - and on qualitative social/governance data (e.g., human capital and board metrics) that may shift both the continuous risk needle (Sustainalytics) and the leader-band

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<sup>99</sup> NIO Inc. (2024, December 27). *NIO's ESG rating upgraded to AA, ranking in the top tier of the global automotive industry*; NIO Inc. (2025, April 22). *NIO releases 2024 ESG report*

(MSCI).

To sum up, the 2023→2024 proof seems to indicate leadership categorical parity, with a residual process/controls edge for BMW, which is the exact sort of pattern one would anticipate, when a younger pure-play is closing disclosure and governance gaps, while a mature incumbent is maintaining a consolidated control environment (*BMW Group, 2025, 2024; NIO, 2025, 2024; MSCI ESG Research, 2024; Sustainalytics, 2024; GRI, 2021; OECD, 2023*).

### **3.4 Observations**

Throughout FY2023 to FY2024, besides the data communicated by the companies themselves, the information derived from third-party evaluations, also reveals some changes in the ESG profiles of the companies.

BMW has been working on the improvement of its Governance, which has been confirmed by the board's independence, the ESG-linked remuneration, and control/assurance practices of a long tradition.

With regard to NIO, the company should take advantage of the Environmental aspect with their BEV-only product strategy, as they can demonstrate the circularity of the product, with the indicators at the product-level (recyclability/recoverability), albeit the operational energy mix is still a bit of a problem.

As time passes, however, it seems that external ratings are becoming more important and they put more emphasis on the similarities between the two companies.

Moreover, Sustainalytics has rated them as having Medium Risk, with BMW being marginally better than the other. The differences between the two results, can be explained by the methodologies used in the two rating agencies.

According to MSCI, sector-relative bands help to get closer to

the issues of governance/process formalization, while Sustainalytics, as an absolute risk lens, emphasizes the remaining exposures and the effectiveness of risk management.

The pattern of strengths is evident throughout the analysis:

**BMW → Governance (and Social disclosure maturity).**

**NIO → Environmental (product strategy and circularity**

**signals).** *Sources: BMW Group ESG/Sustainability Reports FY2023–FY2024; NIO ESG Report 2023; MSCI ESG Ratings; Morningstar Sustainalytics ESG Risk Ratings (as summarized in Tables 3.1–3.3)*

The first signals from the firms are an introduction for the next discussion, on whether and how consumers perceive sustainability as compatible with exclusivity, and under what credibility conditions it translates into value and willingness to pay.

## **Chapter 4 – Proof Over Promise: through consumers' lens**

ESG ratings, sustainability reports, and third-party evaluations might be considered as providing objective indicators of corporate performance, but they are not enough to fully disclose how customers perceive the integration of sustainability, in the luxury automotive sector. For the latter reason, in this chapter, the study will dive deep into the consumers' point of view, through the implementation of a bespoke online questionnaire via Prolific Academic, which resulted in 217 valid responses. Participation was free and paid; before commencing the survey, respondents were asked for their informed consent.

It is known that consumer perceptions may have a great impact as they come from a sector where luxury is synonymous with

symbolic value, exclusivity, and reputation; hence, the perceptions of consumers, may be regarded as the ones that can give sustainability initiatives the credit they deserve.

The questionnaire targeted a diverse group of respondents, considering demographic characteristics, professional roles, and consumption habits.

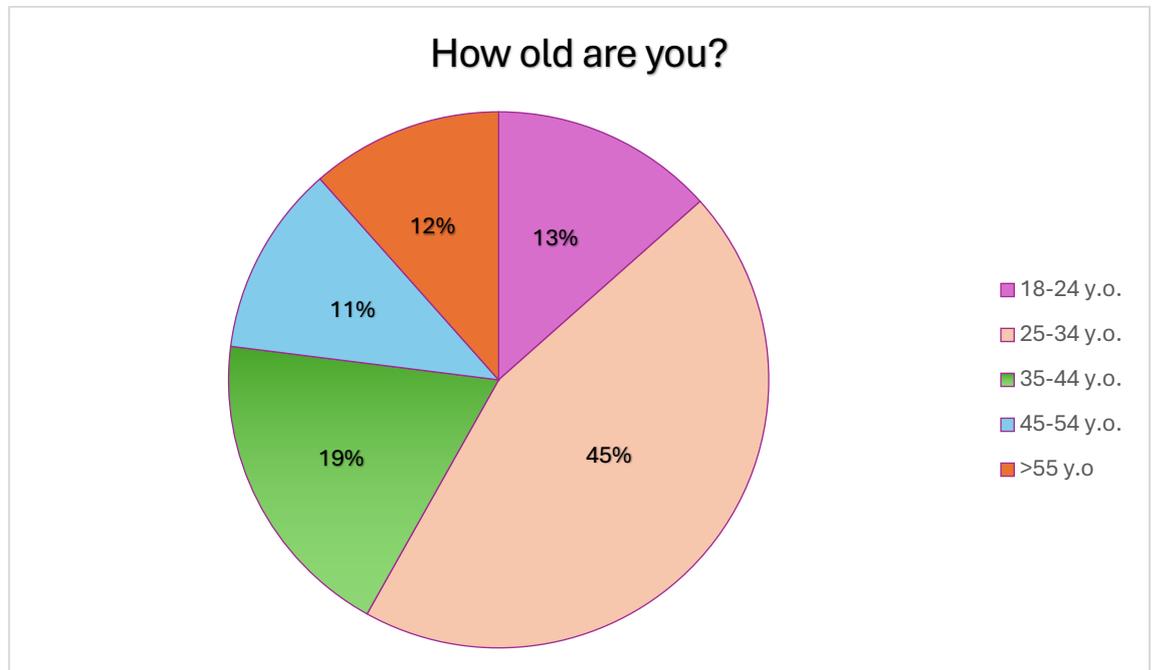
Concepts as the importance of sustainability in luxury purchases, the perceived relationship between sustainability and exclusivity, the role of trust and brand reputation, and the extent to which consumers are willing to pay a premium for sustainable luxury cars were touched.

The results are arranged in a logical sequence: respondents' demographic characteristics and their general luxury consumption patterns are presented first; next, consumer perceptions of sustainability in luxury automotive are dealt with in the main part of the study, focusing on value, exclusivity, trust, and willingness to pay; finally, the results are juxtaposed with the ESG performance of BMW and NIO, thus, providing a link between corporate practices and consumer expectations.

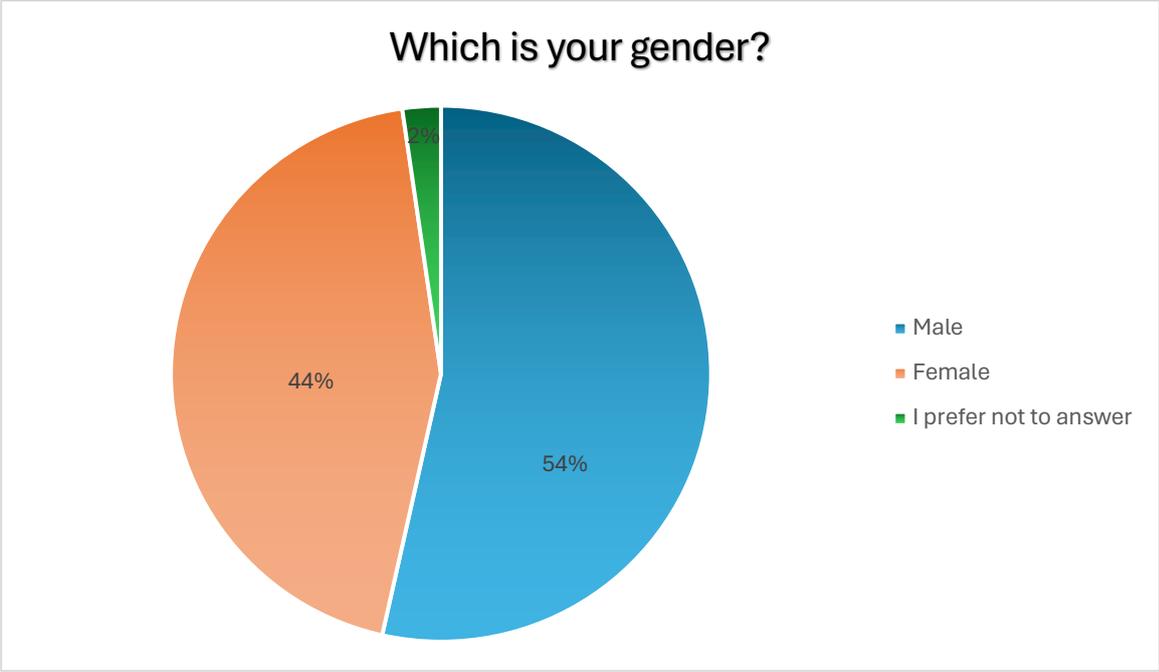
This chapter, as a result, provides an essential depth of examination to the dissertation, pointing out the extent to which a sustainable approach is seen, as an influence of credibility, uniqueness, and sustainable competitive advantage in the luxury car sector.

## 4.1 Sample Demographics

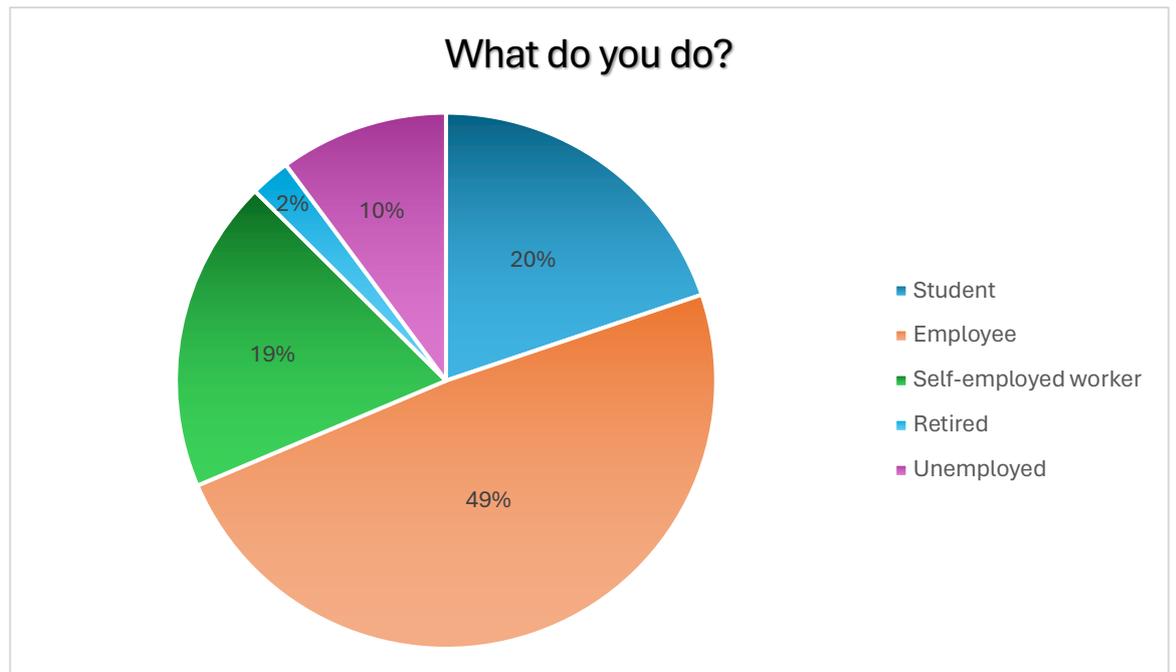
With 217 valid responses collected, the study obtained a sufficiently large dataset, to reflect different perspectives on luxury consumption and sustainability in the automotive sector. The sample was deliberately made up of people of different ages, genders and professions; this allowed for an exploratory understanding of how demographic factors might influence consumer attitudes.



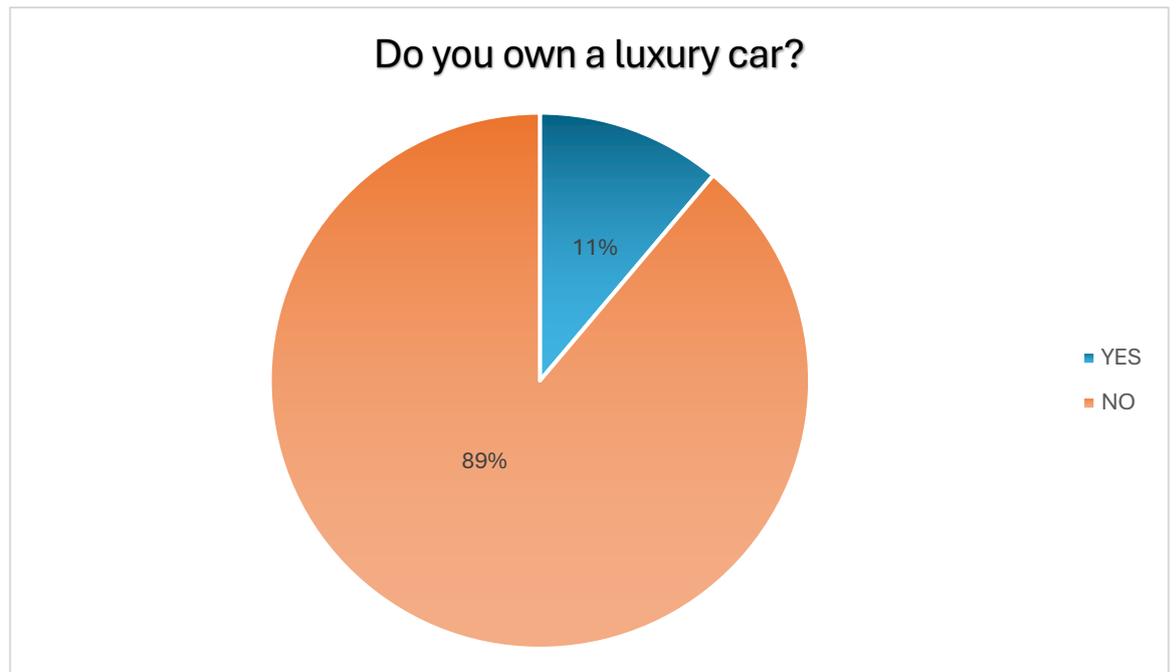
Most of the respondents belonged to the 25–34 age group (44.7%), followed by those aged 35–44 (18.9%) and 18–24 (13.4%). Namely, older respondents, that is, people in the 45–54 (11.5%) and 55+ (11.5%) categories, were less represented. This spread of data indicates that the dataset is largely influenced by the opinions of younger and middle-aged consumers, who are usually regarded as more eco-sensitive, while it still contains views of the older demographics.



The sample had a fairly balanced gender composition, with 53.5% male and 44.2% female respondents, whereas 2.3% of the respondents, a small group, declined to disclose their gender. This equilibrium offers a sound foundation for avoiding gender bias while analyzing the results.



Nearly half of the respondents (48.8%) were employees while 19.8% were students and 18.9% self-employed. The shares represented by the unemployed individuals and retirees were smaller, at 10.1% and 2.3%, respectively. The distribution reflects a population broadly involved in professional activities, with a considerable proportion of young people still in educational institutions, which may affect both the level of income and luxury consumption patterns.



Most of the participants (88.9%) when asked if they have a luxury car, most of the participants (88.9%) responded that they do not have a luxury car, with only 11.1% reporting that they have a luxury car.

This outcome is not surprising since luxury cars are a symbol of the most valuable assets, that only a small fraction of the population can afford.

However, the views of those who do not own remain crucial, as they represent not only the general attitudes of society, but also the dreams of potential future consumers of luxury automotive brands.

In general, the demographic composition of the sample provides a diverse, balanced basis for consumer perceptions analysis. The dataset cannot be considered representative of the global luxury automotive market, but it gives valuable exploratory insights of different consumer groups' mindset, towards the luxury-sustainability combination.

## 4.2 Consumer Behavior in Luxury Purchases

To understand consumer behavior in the luxury industry, case studies are vital to highlight sustainability perceptions.

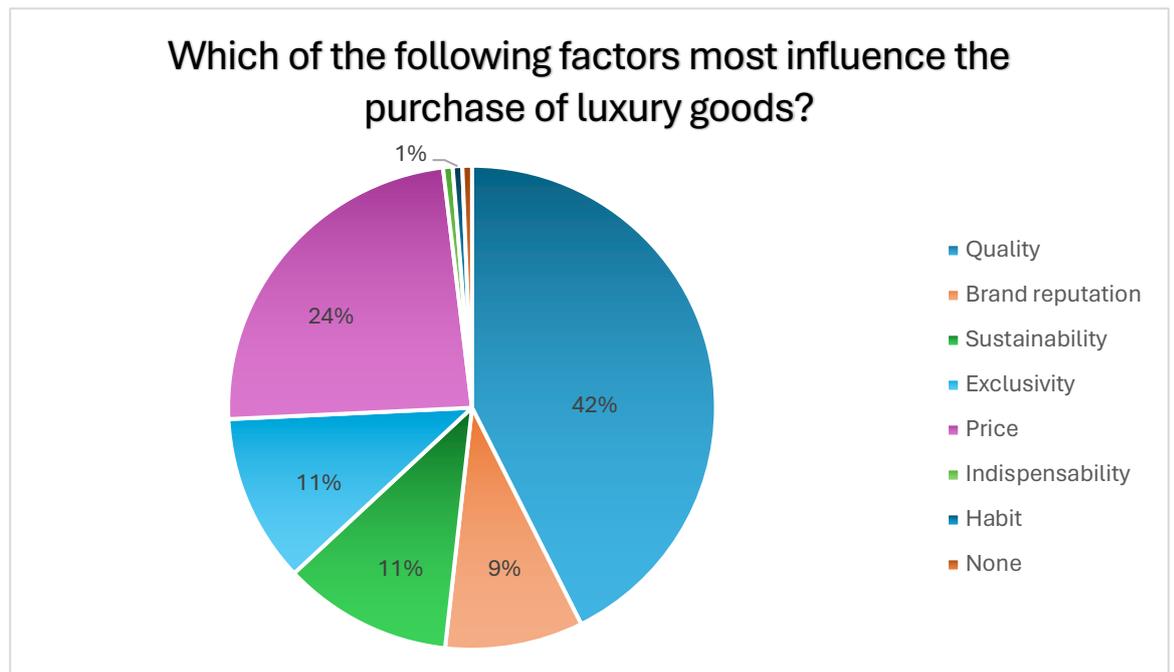
The survey not only delved into the frequency of luxury product purchases, but also the main drivers that influenced them.

As a result, it has given some indications, as to how the respondents relate to the broader luxury market, beyond the automotive context.



More than half of the respondents mentioned that they had bought luxury products only rarely (54.8%), at the same time 20.7% indicated that they had purchased luxury goods occasionally, and 20.3% declared that they had bought them frequently. A very small minority stated that they never purchased luxury items.

This distribution implies that, for most participants, luxury consumption is not an everyday activity, yet it represents a significant part of their consumption habits, with a notable portion of the sample attending to luxury products at least occasionally.



Regarding the most important factors that influenced their luxury purchases, a large majority pointed out **quality** (47%) as the primary driver.

This finding aligns with what is already known from the literature, where luxury is gravitated towards by the association of it being made of the highest-quality materials and being long-lasting.

Other factors also played an important role: brand reputation (26.3%), sustainability (12.4%), and exclusivity (10.1%).

Only few respondents referred to price as the leading factor, thus, among luxury consumers, it is widely believed that this segment is less sensitive to cost considerations.

A very low number of participants referred to “necessity” or “habit” as relevant drivers.

When combined, these outputs validate that luxury is largely linked to the quality and the reputation of the brand, while the eco-friendliness of a product is progressively becoming a secondary, but still a significant factor in a consumer's decision.

The fact that more than a tenth of respondents distinctly stated

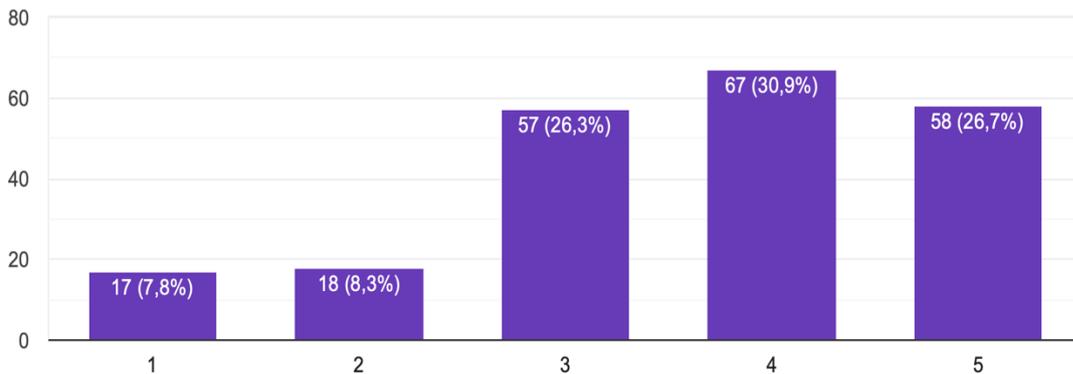
sustainability as one of the major factors, demonstrates the increasing prominence of responsible consumption, even in the high-end market, which is known to be characterized by the purest symbolic and status-related features.

These trends are a great indication of the context of the next chapters, which analyze in-depth the attitude of the respondents towards the implementation of sustainability in the luxury automotive sector.

### 4.3 Perceptions of Sustainability in Luxury Products

#### 4.3.1 General Perception

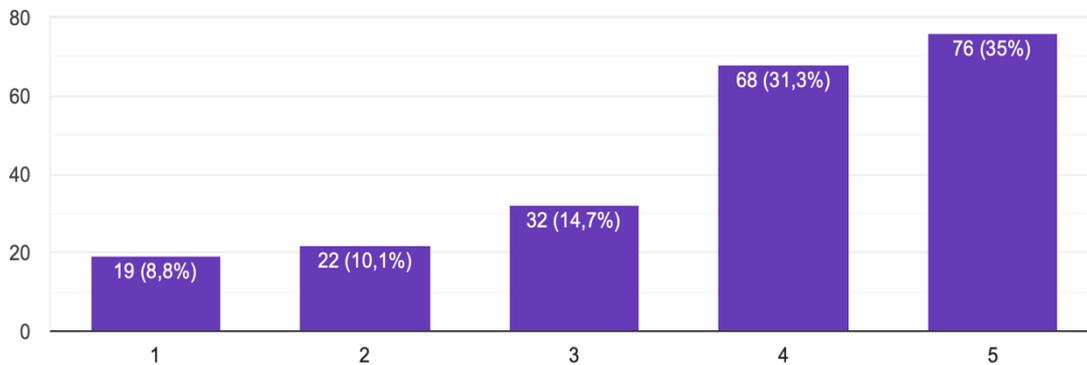
**How important is sustainability, in your opinion, when purchasing luxury products?**



The distribution pointed to a higher importance in a very clear manner. 57.6% of respondents chose the top-two categories (4-5), compared to 16.1% in the bottom-two (1-2), with 26.3% being neutral (3). The median is 4 and the mean is 3.60.

Such a trend shows that sustainability is already one of the significant criteria while buying luxury, thus it is neither completely detached nor only aspirational.

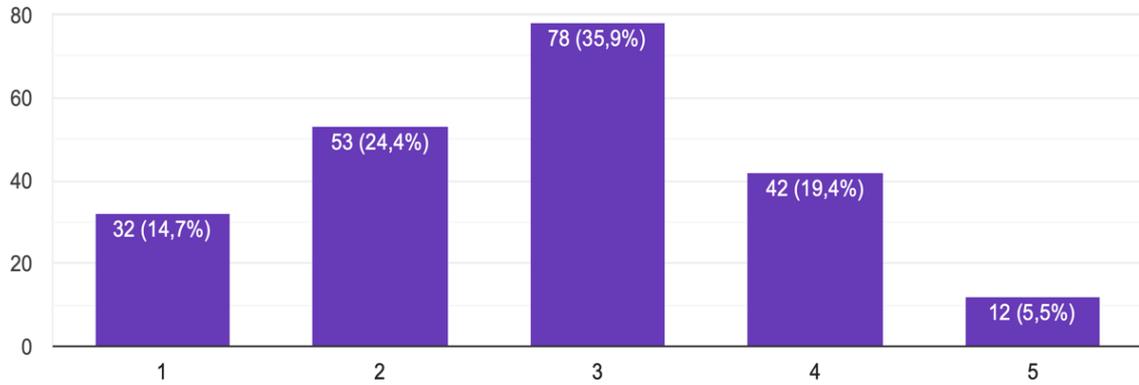
## Sustainability is an important aspect in the luxury automotive industry.



By concentrating on the specific sector, the level of agreement would go up even more: 66.4% top-two (4-5), 18.9% bottom-two (1-2), 14.7% neutral. The median stayed at 4 and the mean value increased to 3.74.

Compared to the buying of luxury goods in general, consumers decide that the sustainability issue, in the luxury car sector, should hold even more weight, when making the decision, which is, also, in line with the high environmental saliency of automotive products.

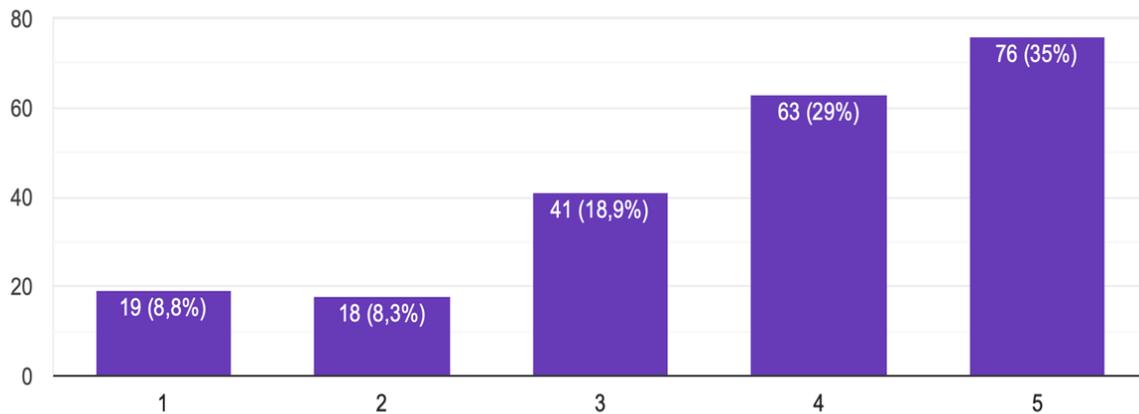
**Luxury car brands are effectively investing in sustainable practices (e.g., emission reduction, recycled materials)**



Here, disagreement with the statement dominates, with 39.1% of the bottom-two groups (1-2) compared to 24.9% of the top-two groups (4-5) votes, and a large neutral group (35.9%). The median is 3 and the mean falls to 2.76.

Such data tells us that the public perceives a gap in credibility/implementation: they consider sustainability necessary (mean 3.74 for automotive) but are not convinced that brands' current investments are real, or effective.

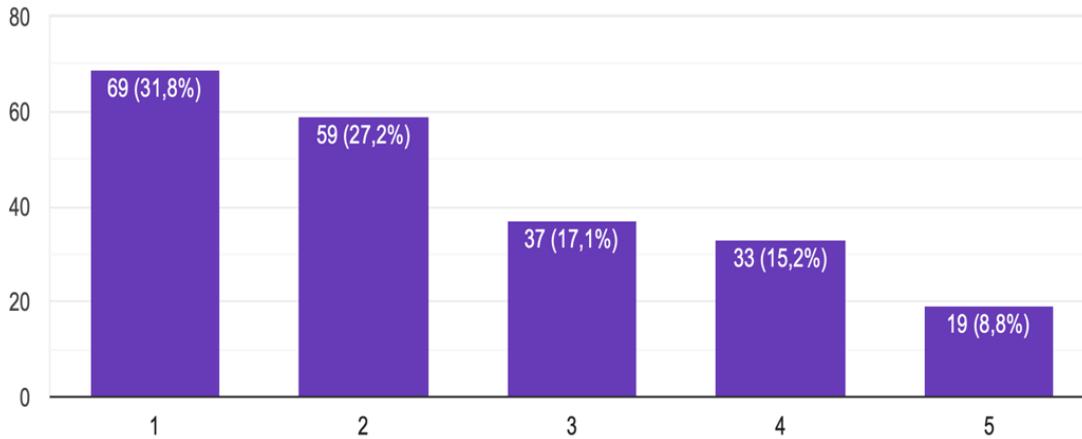
### Sustainability increases the perceived value of a luxury car.



On the other hand, the replies to the statement "Sustainability increases the perceived value of a luxury car" show that responses are aligned with a positive view, 64.1% top-two (4-5) vs 17.1% bottom-two (1-2); 18.9% neutral. The mean is 3.73. Hence, if sustainability is genuinely present, consumers would expect the perceived value to be higher, which goes along with the understanding of sustainability as a product (and brand) - value augmenting attribute, not as a luxury decrease.

### 4.3.2 Luxury and Exclusivity

**Luxury cars must remain exclusive, even if this limits their sustainability.**



The tilt of the distribution is strongly against the statement:

Disagree (1-2): 59.0%

Neutral (3): 17.1%

Agree (4-5): 24.0%

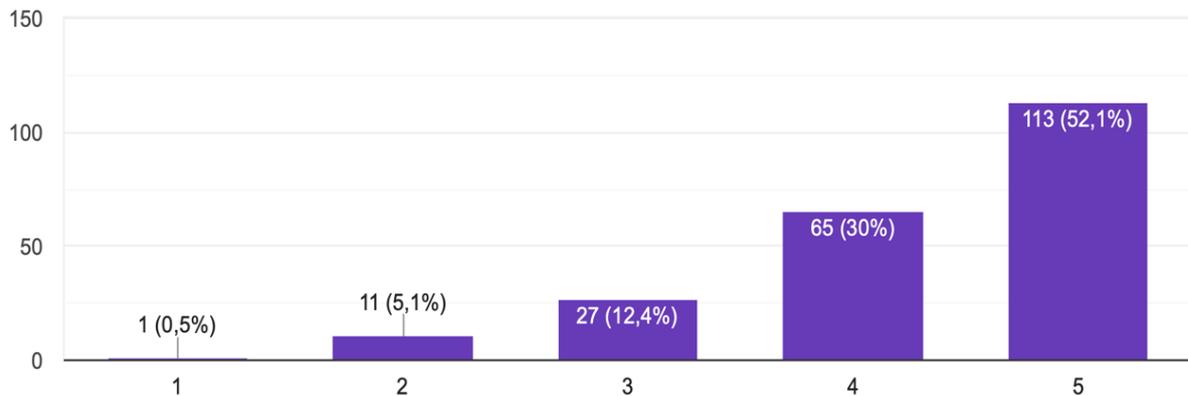
This outcome supports the earlier results, that sustainability is a major concern in luxury automotive and it becomes the source of value, if implemented credibly.

Now, consumers refuse to consider a zero-sum scenario:

exclusivity should not be the cause of less sustainability.

From a managerial perspective, this means that brands could, not only reconcile, but also leverage the power of exclusivity and sustainability to their advantage; the brand lifestyle narratives can be aligned with responsible luxury through rare, provenance-verified materials, traceable low-impact supply chain, limited editions with measurable environmental outcomes, etc.

## A sustainable luxury car can still be perceived as exclusive.



Top-2 box (4–5): 82 %

Bottom-2 box (1–2): 5.5%

Neutral (3): 12.4%

Agreement is overwhelmingly high: more than four out of five respondents think that sustainability does not compromise exclusivity in luxury automotive.

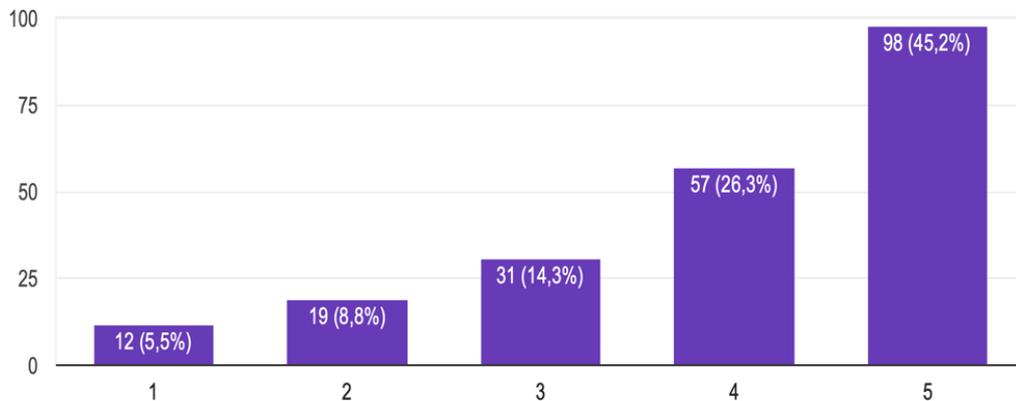
The central tendency that is high (mean 4.28) and the narrow range of confidence interval gives a hint of a stable, strongly positive perception across the sample.

Comparing this trade-off with the previous one, which states that the sample should reject the idea of luxuries remaining exclusive even if it limits sustainability (mean 2.42), this answer clarifies the integrative mindset: consumers do not perceive exclusivity and sustainability as rivals, but rather as co-possible.

This outcome justifies a modern luxury concept, where exclusivity is no longer only a matter of rarity and status, but also of technological leadership, provenance, and verifiable responsibility. The environment can help to revive exclusivity, for example by the use of limited edition innovations, traceable materials of low environmental impact, superior durability and supply chain audits that render it difficult to replicate.

So, brands need to create products that not only appeal to consumers, but that also make sustainability a source of rarity and distinction for instance (the number of iterations with disclosed life cycle metrics, production of the exclusive goods that can be long-lived, certified closed-loop materials). To make the most of the positive customer attitude, communication should facilitate the process of trust formation by providing concrete verifications such as audits, third-party certifications, and so forth, to bring about a pricing power and brand preference.

**Sustainability can become a distinguishing feature for a luxury brand.**



Top-2 box (4–5): 71.4%

Bottom-2 box (1–2): 14.3%

Neutral (3): 14.3%

A significant measure of agreement is seen in the data: most specifically, nearly three quarters of respondents think that sustainability could become a helping branding factor. The mutual or modal agreement among indices of central tendency (mean 3.97) illustrates the concerted call not just to slack

response, but even more to the strategic direction, where sustainability is treated explicitly as the differentiator of brand-level, rather than a mere hygiene factor.

The low symmetry around the two extremes (top two and neutral, each 14.3%) helps to picture that the share of disagreement is very limited.

Compared with connected items presented (e.g., “a sustainable luxury car can still be exclusive” and “sustainability increases the perceived value of a luxury car”), here goes the brand that plays the main role, in positioning rather than product characteristics.

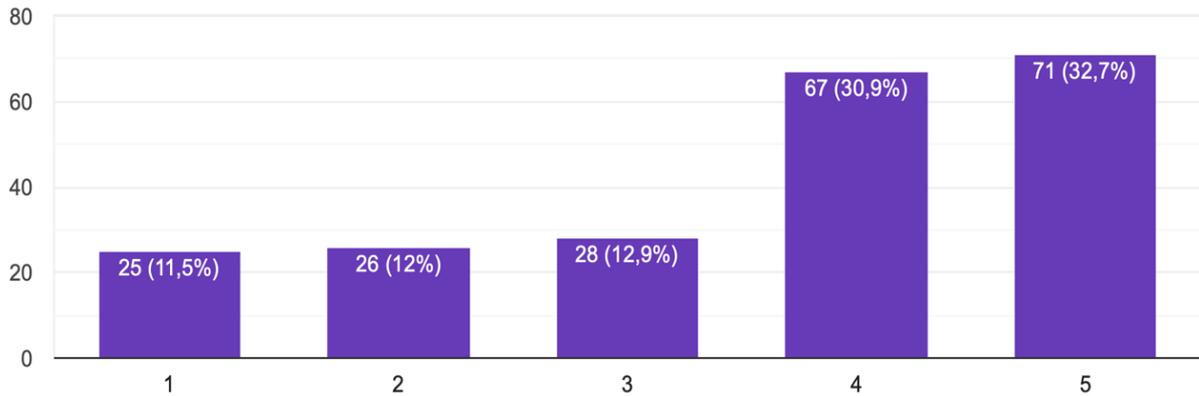
Survey respondents agree on a scenario, where clean technologies and the like are symbols of quality, innovation and cultural leadership, thus on the contrary to the common fears they incubate of the premium identity, brand practice is restored and even reinforced through it.

Sustainability should be a key program for differentiation (provenance, circular design, low-impact materials with traceability, measurable lifetime performance), rather than the only aspect of compliance.

Anchor evidence in quantifiable results (third-party audits, LCAs, science-based targets), to shape brand preference and pricing power, besides simply changing favorable attitudes. Sustainability become the brand's narrative (heritage × innovation × responsibility), to be a core feature of the brand's uniqueness rather than a feature.

## 4.4 Consumers' Behavior and Expectations

**In purchasing a luxury car, sustainability would influence the choice.**



Top-2 (4–5): 24.9%

Bottom-2 (1–2): 42.9%

Neutral (3): 32.3%

Trust is weak and uncertain. The average value stands below the neutral midpoint (3) and the number of bottom-two is higher, than the top-two by 18 percentage points.

In other words, for every 10 respondents who trust brand claims (4-5), there are about 17 who do not (1-2).

The large neutral bloc (32.3%) indicates a lot of undecidedness/low confidence, not a polarized audience.

The way the distribution is formed - mode at 3 with a heavier mass on 1-2 than 4-5 - gives a hint that the current sustainability communications by luxury automakers are not very credible for most respondents.

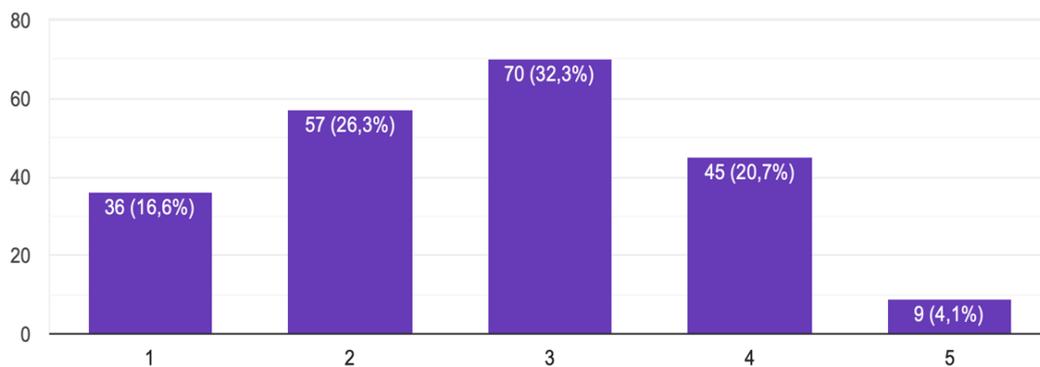
**The main problem is feasibility of credibility, not lack of consumer interest.**

To turn respondents from 3→4/5, brands will need to provide evidence that has been thoroughly checked (third-party assurance, LCAs, science-based targets, traceable materials) and

performance-level metrics that are easily comparable rather than narrative claims.

The large neutral proportion is a potential: these respondents may be more likely to accept your argument if they have access to more accurate data and are able to verify it.

### **Trust in the statements made by luxury car brands about their sustainability practices.**



Top-2 box (4–5): 43.3%

Bottom-2 box (1–2): 30.4%

Neutral (3): 26.3%

WTP is positive but limited. The largest group of respondents (43.3%) stated they are willing to pay more, however, there is still a relatively large minority (30.4%), who would not, and more than a quarter remain undecided. The mean (3.10) is only a little higher, than the neutral midpoint.

Most of the distribution is centered around 4, while the highest levels of WTP are not very frequent (13.8%), indicating that the voluntariness for accepting a premium depends on particularities of the quality or price.

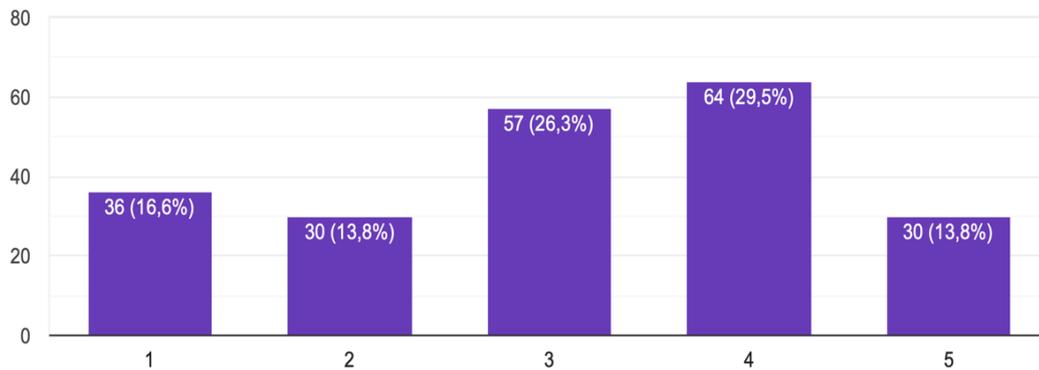
The decrease from attitude, to monetary sacrifice is common: respondents may declare they will opt for the more sustainable

option, but they still require a credible and tangible value proposition for the price premium.

To transform the moderate WTP into price realization, the brands should be able to back up their claims with confirmed, outcome-level data (LCAs, third party verification, science-based targets); also, turn the premium into something that is easy to understand (e.g. durability, residual value, closed-loop services), so the additional price corresponds to the benefits perceived by the consumer.

Furthermore, they should think about targeted premiums for segments that are most responsive to sustainability (to be tested via crosstabs by age, luxury purchase frequency, and trust) that would be the most effective.

## Are you willing to pay a higher price for a sustainable luxury car?



Top-2 box (4–5): 43.3%

Bottom-2 box (1–2): 30.4%

Neutral (3): 26.3%

Willingness to pay (WTP) is positive but with conditions.

The option most chosen (43.3%) showed willingness to pay more, however, almost a third of the respondents (30.4%) would not increase their expenses, and more than a quarter were neither for nor against. The mean is just a little higher than the neutral value.

The plotted distribution is at a maximum at 4, and the number of "strong acceptors" (5) is quite low (13.8%), which implies that the acceptance of a premium depends, largely, on the provision of understandable and credible value cues.

The comparison of WTP with the attitudinal item "sustainability would influence my choice" (mean 3.61) shows that WTP is significantly lower (mean 3.10).

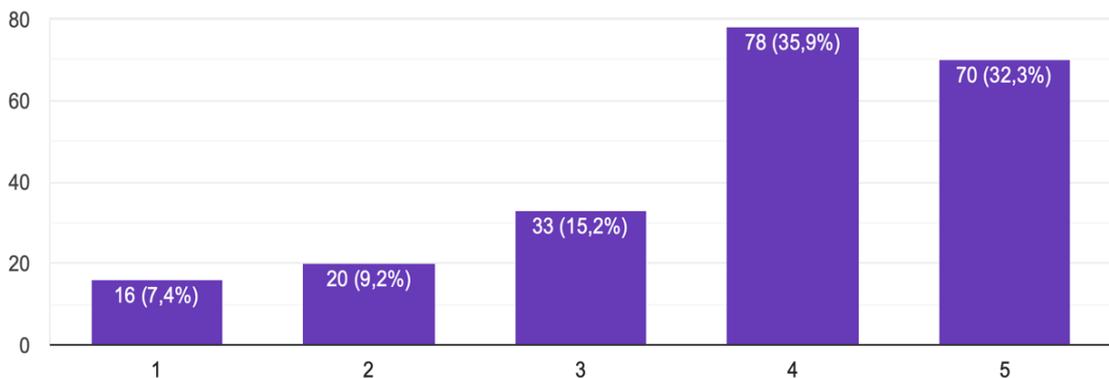
This gap between attitude and behavior is typical: respondents are positive towards the cause, but money is the real test.

To turn moderate WTP into actual pricing, brands could:

- Justify the extra cost with evidence (third-party certification, LCAs, science-based targets; model-level metrics such as recycled/biobased content, battery origin).
  
- Present the advantages in a clear manner to the users (durability, certified materials, circular services, longer warranties, higher residual values), connecting each benefit explicitly with the premium.
  
- Decrease the amount of distrust with the help of the open and honest reporting and verification practices that will solve the trust issues revealed by the survey in other locations.
  
- Precisely Design the premium offering to be most attractive to those target groups most likely to respond to the sustainability message (young people, especially those who frequently purchase high-end luxury products, for example.) At the same time, provide transparent evidence dashboards to promote trust among those consumers who are not yet decided.

## 4.5 Future Vision

**Do you believe that, in the future, consumers will increasingly favour luxury brands that manage to combine luxury and sustainability?**



Top-2 box (4–5): 68.2%

Bottom-2 box (1–2): 16.6%

Neutral (3): 15.2%

Expectations are decidedly optimistic: more than two-thirds of respondents expect brands, that can combine luxury and sustainability, to be the ones that the market will reward.

The high central tendency (mean 3.76) suggests the existence of consensus, for future demand pull of sustainable luxury.

The net agreement (Top-2 minus Bottom-2) is +51.6 percentage points, thus there is a relatively small skeptical minority (16.6%) and a modest neutral bloc (15.2%).

This future-oriented finding is stronger than present willingness-

to-pay (mean 3.10) and trust in brand claims (mean 2.70).

To put it differently, consumers expect the market to reward the integration of sustainability and luxury, however price acceptance and credibility are lagging the aspiration.

For managers, this gap is an indication of a window of opportunity: brands which bring sustainability to the forefront of their products, through verifiable outcomes (audited materials, lifecycle metrics, circular services), are the ones that can gain real preference and pricing power, from the favorable expectations of consumers.

#### **4.5 Analytical discussion – credibility as the bottleneck**

Regarding the expectation – performance gap, the consumers emphasize sustainability in luxury the most (mean=3.60) and even more in luxury automotive (mean=3.74).

Despite this, their views on the success of corporate investing for the environment are significantly lower (mean=2.76).

The need for sustainable luxury is not the problem; the issue is the provision and verification of it. This gap is the lens through which the rest of the results are seen, and it gives a clear indication of the managerial focus.

Respondents are not in favor of the idea, that the exclusivity should be the most important factor, over sustainability.

Moreover, they also agree that sustainability is the reason for the increase of the perceived value of the product and can play the role of a brand differentiator.

In sum, these outcomes furnish the support for a modern-day pattern of responsible exclusivity: the exclusivity is no longer just by scarcity, or the price, but rather it is deeply ingrained with the technological leadership, provenance, durability, and verifiable responsibility, among others.

Consumers proclaimed their commitment to favoring sustainability. Indeed, responsibility as a purchase driver was the most interesting finding in the research, with the average score being 3.61.

However, it was clearly indicated that respondents were much more reserved in their willingness to pay with the mean score being 3.10.

Customers are in a positive mindset towards sustainability, yet premiums have to be justified by clear, tangible value (e.g., audited low-impact materials, superior durability, circular services, residual-value guarantees).

Consumers show a low level of trust in the brands' environmental claims (mean = 2.70), which is the main reason why the trust variable is weaker, than both importance and willingness to pay. The pattern may be indicating the role of trust in the mechanism: credibility enables payment.

In other words, consumers seem ready to commit their price acceptance, under sustainability conditions, when the claims are verifiable (third-party assurance, model-level LCAs, science-based targets, traceable inputs) and when the benefits are clearly mapped to the premium. Even without formal mediation tests, the alignment of means (importance high → trust low → WTP moderate) is consistent, with trust acting as a practical conduit between preference and payment.

Even though this research is an exploratory one, and is not tailored to find out the causal relationships, three descriptive cuts could provide heterogeneity that is useful for management without heavy reliance on statistics:

1. Trust tiers and WTP. Compare WTP across low/mid/high trust segments; a monotonic uplift would be a consistency with the credibility mechanism and show the areas where premiums are more feasible.
2. Age cohorts and compatibility. Generally, younger cohorts

tend to have a more robust compatibility perspective (exclusive and sustainable). Hence, if this view is confirmed, communication and product proofs can firstly be targeted to these audiences.

3. Luxury purchase frequency. A high frequency of luxury purchases may lead to a significantly higher share on value-enhancing and differentiation items; thus, these consumers become the best recipients of evidence-backed premium offer (e.g., extended warranties, buy-back, certified materials) programs.

It is a fact that consumers would prefer sustainable luxury and, in most cases, refuse that it is exclusive. The main problem is the lack of trust, which results in a lower willingness to pay, than there is a positive attitude towards the idea.

From a strategic point of view, brands need to go beyond mere assertions and deliver actual, audited results, make sustainability an integral part of their product and ownership experience that is difficult for competitors to imitate, and focus on pricing at the higher end of the market where the largest number of customers are most likely to trust the brand while at the same time gaining the trust of the undecided group through the provision of transparent and comparable evidence.

When consumer testimonies are combined, they reveal that sustainability stands out as a salient feature and is still compatible with exclusivity, but among all the attributes credibility is the one that plays the most important role, in limiting the willingness to pay.

The chapter, by comparing these consumer cognitions with the BMW–NIO case, maps out the areas where corporate advancement could be acknowledged and moneyed by the demand side. The next chapter elaborates on the further theoretical and managerial implications

## **Chapter 5 – Translating Sustainability into luxury value: discussion and contributions**

This chapter is an overview of the thesis consummates the two empirical pillars of the thesis - the firm-side ESG assessment (BMW vs. NIO) and the consumer-side survey - and locates the combined evidence within the literatures on luxury, authenticity, signaling, and sustainable consumption.

The first part of this chapter reflects on the core insights that were identified in Chapter 4 (high salience of sustainability, compatibility with exclusivity, credibility shortfall, and qualified willingness to pay) and explains them with reference to the corporate patterns documented in Chapter 3.

The chapter then proceeds to elaborate on the contributions of the study: a more nuanced view of responsible exclusivity in luxury automotive; the function of credibility/trust as the actual mechanism connecting pro-sustainability attitudes to price acceptance; and a comprehensive framework that integrates ESG performance with consumer value formation.

Using this rationale, the chapter discusses the managerial implications as to how luxury automakers can convert verified sustainability into product, service, and pricing strategies that are distinctive.

Lastly, it mentions the limitations and boundary conditions (sampling, cross-sectional design, self-report measures) and indicates the directions for future research, which involves experimental tests of credibility effects and revealed-preference evidence on price premia.

## 5.1 Summary of Key Findings

This research paper has delved into how sustainability has been made a part of the luxury automotive value proposition, by integrating an ESG assessment on the firm-side (BMW vs. NIO), with the help of a new consumer survey (n=217). The results can be categorized into 3 clusters.

The cases' data depict BMW, as a maturing car manufacturer with comparatively sound management of ESG risks and much disclosure (Sustainalytics "Medium Risk" with a strong management; MSCI AA) and NIO, as a luxury EV brand with a high rate of sustainability development (MSCI upgraded to AA), but a limited governance/disclosure track record and, somewhat, higher ESG risk than BMW in the Sustainalytics.

The power of BMW is in the governance and the transparent processes; that of NIO is in the environmental positioning and the innovation speed.

There are four recurring themes which are present in all statements and are consistent and robust:

- Sustainability has a high salience. The importance was scored at 3.6 for luxury in general and at 3.74 for luxury automotive, indicating that sustainability is a core evaluative criterion, not a side issue.
- Exclusivity is compatible with sustainability. Consumers reject the trade-off ("luxury should remain exclusive even if it limits sustainability") and also approve coexistence ("a sustainable luxury car can still be exclusive").

They further agree that sustainability leads to the higher perceived value of the product, and also can be used to differentiate brands.

- Credibility shortfall. Effective investment by brands is perceived as modest (mean 2.76), and trust in sustainability

claims is below neutral (mean 2.70), thus an expectation – performance gap, of about one Likert point, is created between what consumers deem important, and what they believe firms are actually doing.

- Qualified willingness to pay. Sustainability would influence choice (mean 3.61), but willingness to pay a premium is lower (mean 3.10).

This attitude–behaviour gap suggests that price premia are conditional on credible, legible value.

Juxtaposing firm and consumer evidence yields a clear interpretation. The binding constraint is credibility, not demand. Consumers already accept that sustainability enhances luxury and coexists with exclusivity, but price acceptance depends on verified outcomes (e.g., model-level LCAs, third-party assurance, traceable materials), and on translating sustainability into distinctive product and ownership value (durability, circular services, residual value).

Strategically, BMW’s governance/disclosure maturity and NIO’s innovation momentum can both be converted into consumer-side advantage—if each brand operationalizes sustainability in audited, owner-visible ways.

## **5.2 Discussion vis-à-vis the literature**

The outcomes of this study revolve around the paradox of luxury-sustainability that has been debated over time.

Initially, the two features of sustainability and luxury were presented as completely different in nature; while luxury was associated with abundance and rarity, and sustainability with

limitation and responsibility.<sup>100</sup>

However, the consumer evidence we have gathered demonstrates that the *respondents* do not accept a zero-sum trade-off; rather, they *perceive sustainability as a feature that could be both compatible with and enriching of exclusivity*: the respondents were neutral that exclusivity should be the main aspect at the expense of sustainability (mean 2.42) and they were quite positive that a sustainable luxury car could still be exclusive (mean 4.28).

The recent academic research, on the luxury paradox, has shifted towards the concept of “responsible exclusivity”; exclusive become less and less associated with the elements of craftsmanship, provenance, durability, and technological mastery and more with the one of conspicuous waste successfully.

The second thing is about the authenticity and signaling.

Luxury is, in a way, infinitely symbolical; the brands have to keep alive - the story of ‘the one and only’.<sup>101</sup>

The concept of signaling<sup>102</sup> might help in understanding that sustainability, if done with great credibility, could be one of the hardest, most expensive signals to be a marker of superior capabilities (for example, fully traceable materials, completely audited LCAs, or circular services), thus raising the status further.

This idea is also very compatible with the experiments on conspicuous conservation, that argue the visible sustainable attributes may be a signal of prestige, but only under fairly stringent conditions.<sup>103</sup>

The data in this study show that sustainability can increase

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<sup>100</sup> Kapferer, J.-N., & Michaut-Denizeau, A. (2014). Is luxury compatible with sustainability? *Journal of Brand Management*; Davies, I. A., Lee, Z., & Ahonkhai, I. (2012). Do consumers care about ethical-luxury? *Journal of Business Ethics*

<sup>101</sup> Beverland, M. (2006). The ‘real thing’: Branding authenticity in the luxury wine trade. *Journal of Business Research*

<sup>102</sup> Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*

<sup>103</sup> Griskevicius, V., Tybur, J. M., & Van den Bergh, B. (2010). Going green to be seen: Status, reputation, and green products. *Journal of Personality and Social Psychology*

perceived value of the offering (mean 3.73) and become a differentiator for the brand (mean 3.97) align with this perspective: when responsibility is verifiable, and is part of the product quality code (fit and finish, longevity, provenance), then this will no longer make the product less luxurious.

Thirdly, the numbers show a lack of trust, which aligns with a body of research on skepticism towards green labels and **greenwashing**, *a deceptive marketing and communication practice whereby a company or organisation pretends to be more sustainable than it actually is in order to attract consumers or investors who are sensitive to environmental issues*<sup>104</sup>. The trust in brand declarations is below neutral (average 2.70), and respondents are suspicious of the efficiency of present allocations (average 2.76).

Earlier studies illustrate that ambiguous assertions work to reveal persuasion knowledge, which results in mistrust, however, third-party certification and outcome-based evidence give less space for doubt.<sup>105</sup>

Fourthly, an archetypal attitude–behavior (value–action) gap has been detected. Consumers state that sustainability would have an influence on choice (mean 3.61; Top-2 63.6%), but that willingness to pay (WTP) is more conservative (mean 3.10; Top-2 43.3%).

This pattern of behavior is consistent with previous research on sustainable consumption<sup>106</sup> and the competence-penalty theme is also echoed, here where “green” cues might lower the perceived performance, unless they are related to the strengths of the category.<sup>107</sup>

In the case of luxury automotive - where quality, performance,

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<sup>104</sup> United Nations. (n.d.). *Greenwashing – the deceptive tactics behind...* United Nations. Retrieved September 17, 2025

<sup>105</sup> Delmas, M. A., & Burbano, V. (2011). The drivers of greenwashing. *California Management Review*

<sup>106</sup> Carrington, M. J., Neville, B., & Whitwell, G. (2010). Why ethical consumers don't walk their talk. *Journal of Business Ethics*

<sup>107</sup> Luchs, M. G., Naylor, R. W., Irwin, J. R., & Raghunathan, R. (2010). The sustainability liability. *Journal of Marketing*

and longevity are at the core - sustainability, if presented as durability-by-design, use of superior materials, and certified circularity, would not fall into the competence trap but rather would be a way to justify the price premium.

Evidence from WTP studies also corroborates the point that diagnostic eco-labels and unaided proof increase consumer preparedness to pay.<sup>108</sup>

Lastly, after comparing consumer perceptions with the ESG profiles of companies (Chapter 3) the dissertation moves on to a more integrative view: the strength of ESG (governance, disclosure, risk management) geared towards the investor should be converted into visible proof, specific to the model, that is new in the marketplace for it to have an effect there.

The acknowledgments in the literature are that luxury and sustainable development are not mutually exclusive when sustainability is credible, difficult to replicate, and embedded in the very sources of luxury value. The current results confirm this perspective and identify credibility as the connecting mechanism bridging pro-sustainability attitudes with economic (choice and WTP) outcomes.

This lays the groundwork for the following sections that present the thesis's theoretical contributions and managerial implications.

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<sup>108</sup> Teisl, M. F., Roe, B., & Hicks, R. (2002). Can eco-labels tune a market? *Journal of Environmental Economics and Management*

### **5.3 Theoretical contributions**

This dissertation moves the needle for sustainable luxury materials over five interdisciplinary innovations - conceptual, mechanistic, integrative, operational, and contingent.

#### **Conceptual**

The research results illustrate responsible exclusivity, as a manner of luxury, that is both practicable and capable of upgrading the values of the luxury house.

The consumers in the research disallow the category of zero-sum trade-off, and take into consideration that sustainability could not only be in tension with, but could, also, strengthen the exclusivity of the acutely sustainability-enlightened luxury goods market, when it is embedded in the traditional sources of luxury value (craftsmanship, provenance, longevity, technological mastery).

As a result, the term "luxury–sustainability paradox" is being redefined as a compatibility problem, that could be solved by achievable and hard-to-imitate practices, instead of by symbolism alone.

#### **Mechanistic**

Experimentally, the maximizing of the position towards the sustainability of (relevance, value-add, brand differentiation) is high, while trust in brand claims is low and WTP is moderate, manifesting an attitude–behaviour gap model of credibility constraints.

Thus, putting forward the hypothesis of a mechanism:

Evidence → Credibility → Perceived Value → Price acceptance, and introduce the proposition of perceived credibility as the mediator (and moderator) in the impact of sustainability attitudes on WTP.

## **Integrative Framework**

Bridging ESG evaluation (BMW vs. NIO) to consumer judgment, lets this study delineate exactly how investor-focused capabilities become market-relevant: the on the firm-side performance needs to be converted into owner-visible, model-specific proof (VIN-linked LCAs, traceability certificates, durability/circularity metrics).

Talking about the Evidence-to-Value Pathway, ESG capabilities, once verified at the model level, are elevated through credibility, which in turn at the consumer level, engenders perceived luxury value and WTP.

This framework, thus, acts as a bridge between corporate sustainability management and demand-side outcomes, furthermore, it allows for identifying the potential links among different academic disciplines (sustainability accounting, branding, consumer behavior) for further research.

## **Operational/Measurement Contribution**

Replicable indices for Sustainable Luxury, to facilitate comparison and integration; the dissertation suggests a series of 0-100 indices based on Likert means:

Sustainability Salience Index (SSI);

Exclusivity–Sustainability Compatibility (ESC);

Corporate Commitment & Trust (CCT);

WTP Index (WTPi);

Future Outlook Index (FOI).

Along with top-two/bottom-two boxes and an expectation–performance gap metric (e.g., SSI – CCT), these instruments allow a portable measurement scaffold, that other researchers can apply across categories and geographies, to benchmark consumer readiness and credibility constraints.

## **Contingencies and Boundary Conditions**

The study specifies the conditions under which sustainability enhances luxury:

- When outcome-verified (third-party assurance)
- When aligned with category-relevant strengths (durability, materials quality, service rituals)
- Among segments most likely to be influenced by sustainable signals (e.g., younger or more engaged luxury consumers).

These contingencies define the theory of responsible exclusivity and generate segment-specific strategies, while warning that generic claims, without evidence, do not lead to price acceptance.

These contributions, when considered collectively, shift the discussion from the question of whether luxury can be sustainable, to the question of how sustainability becomes credible, valuable, and monetizable in the luxury automotive sector - thus connecting corporate ESG capabilities to consumer-side value by means of verifiable evidence and responsible exclusivity.

## 5.4 Managerial Implications

Based on real-life examples, four facts that are empirically grounded, hold the managerial agenda among the most important points: the aspect of sustainability is in the center of attention for consumers of luxury cars; sustainability, as a feature of the brand, is compatible with the exclusivity of the brand and they can even, mutually, reinforce one another; trust is the link that holds everything together; and, lastly, the increased willingness to pay (WTP) is a conditional variable rather than automatic.

It is necessary to go beyond claims and produce audited, owner-visible outcomes and, also, move from generic messaging to product and service value that competitors cannot easily copy to translate these ideas into practice.

The consequences are organized around **Proof · Product · Price · Promise.**

### ***PROOF - Turn sustainability into verifiable outcomes***

- Model-level evidence. Assure and publish year-wise limited life cycle assessments for each model, giving the detailed accounting of total direct and indirect emissions at the model level.
- Traceability and provenance. Cover the bill of materials for the core materials (metals, batteries, and leather/alternatives) with third-party audits and supplier non-compliance remediation.
- Owner-facing proof. Provide the VIN-linked Evidence Card both at handover and as an app: production footprint, recycled/biobased content, repairability/circularity pathways, end-of-life partners.
- Governance and assurance cadence. Build a relationship with an independent assurance partner; sync reporting periods with product launches to avoid gaps of credibility

during market entry.

***PRODUCT — Make responsibility a source of exclusivity***

- Use provenance-verified, low-impact materials; serialize limited “responsible editions” with numbered certificates and public impact ledgers.
- Longevity and craft. Engineer durability (modular interiors, replaceable wear parts), publish durability testing, expand restoration and certified refurbishment as atelier services.
- Circular luxury services. Offer buy-back, refurbishment, and repair programs as concierge rituals (collection, courtesy mobility, certification), turning circularity into status.
- Experience integration. Reflect sustainability proofs in tactile cues (materials, finishes) and in digital UX (owner dashboards, service milestones).

***PRICE - Convert proof into monetizable value***

- Link any premium to explicit value: extended warranties, residual-value guarantees, circular service credits, prioritized service/charging.
- Segmented monetization. Work on high-propensity cohorts first (younger, frequent luxury buyers); offer opt-in evidence-linked upgrades for undecided segments.
- Total cost of ownership (TCO). Demonstrate how a lower lifecycle cost (maintenance intervals, durability, residuals) can be the reason for taking a premium beyond powertrain narratives.
- Risk reduction. Implement risk-reducing methods such as trials and guarantees (e.g., refurb eligibility, battery-health certificates) to lower the perceived risk which makes WTP higher.

***PROMISE — Narrative anchored in facts (avoid greenwashing risk)***

- Evidence-first communication. Start with data and only then tell the story. Always be ready with numbers and independent seals. Train retail staff to demonstrate model-level proof at point of sale.
- Progress transparency. Publish the model that shows progress every year; also publish supplier issues and how they get solved to keep trust under scrutiny.
- Crisis playbook. Know the responses to allegations (data room, third party statements, remediation timelines) before the case to help captains locate trust quickly.

***PROOF – A unit operating across departments***

- Sustainability, Engineering, Procurement, Legal, Brand, Retail, that is responsible for the model level evidence chain.
- LCA data lake along with version control; a platform for the traceability of suppliers
- VIN-level audit trails which are accessible to owners.
- Incentives. Part of executive and product leadership bonuses can be made dependent on assured model coverage, supplier compliance, and trust/WTP metrics.

**What success looks like?**

Brands that act on **Proof – Product – Price - Promise** could notice a closing of the expectation-performance gap (higher trust, clearer perceived investment), an uplift in premium realization, and a defensible form of responsible exclusivity rooted in provenance, durability, and verified performance: exactly the qualities that consumers in this study link with sustainable luxury.

## 5.5 Limitations and Future Research

This study is exploratory and the results of this study should be interpreted considering some limitations in methodology.

Non-probability online sample (external validity). The respondents were recruited on Prolific; as is the case with most web-panel surveys, the sample is non-probability and is subject to self-selection. Such designs may suffer from under-coverage and selection bias which in turn reduce the ability to generalize the results to the whole population; post-hoc adjustments only partially solve these problems and require strong assumptions. Therefore, it is necessary to be transparent with the sampling and the measurement. Evidence suggests that Prolific participants are, on average, more naïve and attentive than on some alternative platforms, which supports data quality; nonetheless, this does not convert the sample into a probability frame nor eliminate selection effects.

All measures were collected at a single point in time; thus, causal claims cannot be made. Associations (e.g., between trust and willingness to pay) should be considered as descriptive patterns rather than causal effects.

Attitudes and intentions (for example, willingness to pay) are self-reported, hence the possibility of being influenced by social-desirability and common-method variance.

The information obtained is aggregated from the Likert scale (1-5); the practice of considering Likert items as close to interval is widespread and, generally, robust for many parametric summaries, though some researchers may insist on the use of strictly ordinal models only; the results should be viewed accordingly.

Discrepancies between stated and revealed preferences. The elicitation survey is of stated attitudes and stated willingness to pay; these are the points that may depart from revealed behavior in market situations, hence the self-reporting pricing measures are inherently limited in this regard.

The main ideas (e.g., "trust," "perceived investment") are captured by single-item measures for simplicity; the reliability of such could be improved if multi-item scales were used.

Besides that, the study is deeply rooted in the luxury car sector and two-lead brand counsels (BMW, NIO).

Therefore, the extension of conclusions beyond luxury car category and these two brands should always be done by considering this limitation first.

If we consider these boundary conditions together, it means that findings should be seen as indicative patterns that stimulate additional research - in an ideal situation such research would rely on probability-based sampling, multi-item validated scales, experimental or longitudinal designs, and behavioral (revealed-preference) measures to increase both the causal inference and external validity.

This is an exploratory study that utilizes a non-probability online sample (Prolific), which inhibits the extent to which the results can be generalized statistically.

All the measurements in the study are cross-sectional and self-reported, hence, the associations found should not be seen as causalities and the stated willingness to pay may be different from the actual market behavior.

Moreover, some examples such as trust were gauged by single items, and the research setting is limited to the luxury automotive sector and two-brand focus. In this regard, the findings point to the need for a cautious approach in extending the results beyond these limits and providing impetus for further

studies employing probability sampling, multi-item scales, and behavioral/longitudinal designs.

## **5.7 Conclusions – Prove more, Promise less**

By performing a firm-side ESG assessment (BMW vs. NIO) and consumer-side evidence, from an original survey (n = 217), this study dealt with the issue of how sustainability could be maneuvered, in the value proposition of luxury automotive to become an integral part of it.

The two lenses merge together, into an unanimous message: *consumers are ready to give high salience to sustainability in luxury- especially in automotive and, most of them, ideologically reject the point that sole exclusivity is the only defensible path.*

On the other side, a credibility shortfall remains with brand claims and corporate investments, that are suspected not to meet expectations, and willingness to pay is conditional rather than automatic.

Conceptually, the data harmonize with an up-to-date model of responsible exclusivity: sustainability is one of the factors that luxury is not lowered but enhanced, instead, if it is originated from the very sources of premium value - *craftsmanship, provenance, durability, and technological mastery.*

In terms of signaling, sustainability is considered a hard-to-fake proof of capability, if accompanied by verifiable outcomes, thus revitalizing brand authenticity and status. This gives a new angle to the long-standing “*luxury - sustainability paradox*” as a matter of credible implementation and translation only, not that they are fundamentally incompatible.

The amalgamation of company and consumer data provides clarification, on what should be changed to allow sustainability to create economic value. Company-level ratings and policies while of first necessity are insufficient on their own, if they are

not embodied in owner-visible, model-specific proof (e.g., trustworthy LCAs, traceable materials, durability and circularity metrics).

The moment such evidence raises perceived quality and trust, the step to price acceptance is available.

Therefore, the thesis erupted with a managerial playbook (Proof · Product · Price · Promise), which outlines how brands can use the help of the playbook, to transition from accounts to results, from routine to distinction, and from the conversion of attitudes to that of preference by consumers.

The boundaries are recognized: a non-probability online sample, cross-sectional and self-reported measures, and a focus on luxury automotive and two focal brands.

These limitations turn the results into indicative patterns, rather than population or causal effect estimates.

Nevertheless, such findings set a rigorous platform for future research to validate the proposed Evidence → Credibility → Value → WTP pathway with experimental, longitudinal, and revealed-preference designs, and to test cross-market contingencies.

On the implications side, things are quite clear.

The main problem is credibility - the consumer demand for sustainable luxury is not lacking. For scholars, the contribution is a bridging framework that links investor-facing ESG capabilities to consumer value formation via verifiable, model-level evidence. The industry, in turn, can use the opportunity to convert sustainability into distinctive luxury codes - provenance, longevity, circular services - which can deliver consumer legitimacy and competitive advantage simultaneously.

To sum up, sustainable luxury in automotive is not paradox but a capability choice.

The brands that materialize sustainability as audited performance, hard-to-imitate product and service value, are the ones most likely to be in line with consumer expectations, to

close the credibility gap and to seize the long-term returns.

The way forward is quite obvious: prove more, promise less -  
and let verified responsibility be a hallmark of luxury.

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