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From Customer Feedback to Brand Image Upgrade: Effect Evaluation on Props Innovation of Sustainable Visual Merchandising in Luxury Brands

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ABSTRACT

The study aims to assess how sustainable visual merchandising (VM) props of luxury fashion brands shape consumers' perceived brand image and to identify innovative ways for luxury visual merchandising. This research adopts the Stimulus-Organism-Response (S-O-R) model, combined with two core dimensions of Aaker's Brand Personality framework—Sophistication and Excitement—as organism variables, and classifies sustainable VM props as decorative and functional stimuli to examine their effects on the overall luxury brand image. Integrating multi-method research including case analysis of Louis Vuitton, FENDI and Dior, a 230-sample questionnaire survey and thematic analysis, the study finds that both decorative and functional sustainable VM props positively boost consumers' perceived Sophistication and Excitement, which sequentially generate favorable response towards luxury brand image. The study also identifies overlapping priority demands of luxury brands and customers on sustainable VM design and proposes targeted optimization strategies covering vendor management, immersive green display creation, transparent sustainability communication and long-term sustainable VM system construction. Additionally, this research points out limitations such as limited sample diversity and insufficient carbon footprint data of display facilities and puts forward directions for follow-up research. This paper enriches the literature on sustainable luxury retail visual merchandising by establishing an evidence-based linkage between sustainable VM prop innovation and customer-driven brand image upgrading.

KEYWORDS: Sustainable Visual Merchandising, VM Props, Luxury Brand Image, S-O-R Model

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1. Introduction

Nowadays, as people pay more attention to the shopping experience (Gupta et al., 2022), luxury fashion brands start to put emphasis on the whole customer journey rather than simply introducing their products, styles and brand stories (Batat, 2019). For luxury brands, Visual Merchandising (VM) is a crucial part as they play a vital role in retail (Nobbs et al., 2015). Therefore, luxury brands want to use visual merchandising to create unique luxury experiences for customers in retail stores (Mattsson & Löfvenberg, 2018). Meanwhile, as the United Nations raised 17 Sustainable Development Goals and the European Union has been implementing tighter policies on sustainability, the public no doubt starts to care more about the sustainable elements of the fashion industry (Pérez-Bou, 2024). With more urgent needs and requirements for sustainable development, luxury brands also have to care more about sustainability and corporate social responsibility (CSR) (Kunz et al., 2020), which is highly related with their public brand images. Thereby, luxury brands have to come out with more sustainable approaches to conduct visual merchandising, which is a vital tool and a main media for retailers to convey such messages to customers (Megat Zambri & Saleh, 2025).

For the time being, green and recycled visual merchandising props have been implemented for some luxury brands like Fendi, Dior to show their efforts for sustainability. It has been proven that sustainable visual merchandising is crucial for fashion brands to succeed in the digital era. For the fashion business, sustainable visual merchandising can not only help reach the global sustainability goal but also evolve customers' expectations (Samleethong et al., 2025). Meanwhile, some researchers have also attempted to analyze the design of VM props across different cases, dividing them into three parts: original design, upcycling of material use and packaging materials, aiming for a long-term effect rather than a one-time event in fashion retail (Park & Chun, 2024). With the acceleration of various technologies, different kinds of VM props have been tested to enhance VM sustainability as well. 3D technology has been used to

analyze the effect of VM props and help adjust the in-store visual merchandising (Baek et al., 2015). As the public pays more attention to the supply chain when it comes to sustainability, there's also a study shows that the sustainable supply chain from the perspective of environmental and customer service are reflected in the VM props with the popular texture used in the window of sustainable theme (He, 2020). All these cases and studies show that sustainable visual merchandising should be emphasized and has a positive influence on the fashion business.

However, most studies just focus on the examples and cases from different kinds of fashion brands to illustrate the effect of sustainable visual merchandising or propose suggestions. As a key role in the fashion industry, luxury brands pay much more attention to VM props in order to communicate to customers and show the brand's identity (Muflih, 2021).

For visual merchandising, VM props are crucial elements (Swarnalatha & Soundhariya, 2018). Props include all the objects and decorations in the display area. Boutiques and stores use VM props to enhance their merchandising, marketing, and even sales performance (Costume & Strege, 1999). Furthermore, VM props are vital in the sales area as well. For instance, hangers and showcases are implemented to place different products, models are set to introduce colorful styles and dressing to customers.

VM props also have an impact on customers. To improve the customer journey, VM props must be planned reasonably to avoid creating a stressful feeling in the store (GUIDE). Sometimes, good VM props can enhance customers' attitude towards a brand. They are essential tools for brands to ensure a good customer journey and attract customers (Isotalo, 2021). As the public puts more emphasis on the sustainability of fashion brands, sustainable VM props can enhance customer appreciation of a luxury brand, too. For example, implementing eco-friendly materials such as recycled wood in retail stores and boutiques can leave a good brand image to customers because the reduced carbon footprint is aligned with the increasing customers' demand for ethical

practices (Samleethong et al., 2025).

Good visual merchandising can enhance the attractiveness of a retail store and even change customers' attitudes. From the perspective of customers, the appeal of a store is closely related to its perceived identity. Good visual merchandising highly aligns with the brand's personality, directly influencing customers' initial impression and overall perception of the store, thereby building a unique perceived image of the brand. Positive emotions of customers play a crucial role as situational cues in the shopping decision-making process: when customers are in a pleasant and relaxed emotional state, they are more likely to give positive evaluations of product quality and brand image (Bakamitsos, 2000). Furthermore, there is a significant positive correlation between a pleasant store atmosphere and customer satisfaction (Spies et al., 1997). When the store atmosphere can simultaneously meet customers' practical needs and emotional needs, customers' in-store participation will significantly increase and they are more willing to actively explore products, interact with store staff, and even extend their stay time. These positive participation behaviors will eventually translate into favorable attitudes towards the brand. More importantly, the core value of store atmosphere lies in building an emotional bridge between the brand and customers through the whole visual merchandising, allowing the store's appeal and perceived image to reinforce each other (Tiu Wright et al., 2006). Therefore, it's reasonable to propose possible ways to optimize VM props on the basis of customers' feedback towards the brand image.

While a sustainable approach can enhance brand reputation and loyalty, there is a clear need for research on sustainable luxury visual merchandising based on customer feedback. Therefore, it is highly relevant to analyze the effect of sustainable VM props on luxury brand image through customers' attitude and feedback, especially since luxury fashion brands closely monitor customer perception and engagement.

1.1 Research Aim and Objectives

Based on the background and situation above, the research aim is to assess the effect of sustainable luxury brands' visual merchandising from the customer feedback to improve the design and implementation of sustainable VM props and strategies.

Here are the specific objectives:

- (1) Analyze the driving factors for the material/design of luxury sustainable VM props.
- (2) Assess the performance of sustainable luxury VM props via specific cases (factors that luxury brands care for sustainable VM props) analysis and questionnaire survey designed for luxury fashion customers (the relationship between the sustainable luxury VM props and brand image through customer feedback)
- (3) Propose possible methods for luxury brands to optimize the design & implementation of VM props and activities.

For this research, to analyze the driving factors for the design of luxury sustainable VM props, some cases from famous luxury brands are selected to study what luxury fashion brands care about for their sustainable VM props. For the relationship between the sustainable luxury VM props and brand image, a quantitative questionnaire survey based on the SOR model and Aaker's Brand Personality Dimensions model will be launched after case study to get the main factors that influence customers' judgment of brand image. Finally, through thematic analysis, some proposals are placed to overall consider factors that luxury brands care and customers' feedback. Therefore, this research is anticipated to provide a clear, evidence-based link between sustainable VM practices and brand image enhancement. For academics, it offers a focused application of established theories in a novel context. For practitioners, it provides a practical guide to optimizing sustainable VM strategies, ensuring that investments in sustainability translate directly into a more sophisticated and exciting brand perception for customers.

2. Related Works

As sustainable visual merchandising is vital for luxury brands and has a strong relationship with customers, related research and theories should, to some extent, have been raised from different angles.

As sustainable fashion engages in environment-related practices with the specific requirements and goals of controlling environmental footprint during and even after the manufacturing process, luxury fashion brands representing the highest level give exclusive access to the first change with the pressure from the public. With the most sensitive customers and the most attention paid by the government, luxury fashion should pursue sustainability actively while distinguishing itself from other segments of fashion brands to ensure customers' mood towards the product and the brand is still unique and valuable (Bakamitsos, 2000; Godart & Seong, 2017). By establishing the depth of the brand through sustainable approaches, customers' attitudes towards the brand would be better. It's ideal for luxury brands to increase customer satisfaction and loyalty, which is important for them to build a strong brand and enhance brand equity (Kaur et al., 2024; Keller, 2001).

Actually, luxury fashion brands are in a better position to pursue sustainability by managing their suppliers and vendors, setting higher standards, requirements, and goals for the production process, and ensuring transparency across products and store facilities (Ozdamar-Ertekin, 2019). For luxury fashion entrepreneurs, views on sustainable luxury fashion may differ, but all agree that transparency in the sustainable process can influence the luxury fashion business (Gardetti & Justo, 2017). However, nowadays, even for luxury fashion products, the sustainable process has received significant attention through supply chain management, yet traceability and supplier audits remain limited by a lack of end-to-end supply chain visibility, despite the importance of evidence of close, long-term trading relationships between the brand and suppliers (Karaosman et al., 2020). Not to mention other parts related to the customer

shopping experience, such as sustainable visual merchandising, which serves as sustainability communication and can support luxury fashion brands in making stakeholders aware of their sustainability commitment (Arrigo, 2018).

2.1 Sustainable Visual Merchandising

Luxury visual merchandising plays a major role in the retail Scenario. It not only includes the simple display of apparel and accessories, nowadays it is a form of art, also having the purpose of sustaining the brand image. The final aim of visual merchandising is to convince customers to enter the store and trigger the purchasing act and have an attitude and a unique image towards the luxury brand (Opris & Bratucu, 2013). In fact, it has been proven vital for retailers to create and maintain a strong brand image and brand loyalty in highly competitive markets (Park & Lee, 2008). As mentioned, especially for luxury fashion brands, visual merchandising can lead to a good brand image and brand loyalty, so it's crucial for luxury fashion brands to have sustainable visual merchandising in such a competitive market.

In today's retail environment, sustainable visual merchandising has emerged as a crucial business practice rather than just a passing trend. Integrating eco-friendly materials and concepts into store displays offers a distinct dual advantage. On the operational side, it significantly reduces the environmental footprint of different sectors and helps companies meet their long-term ecological goals (Megat Zambri & Saleh, 2025). From a marketing perspective, this green commitment serves as a powerful tool for brand building. When brands actively demonstrate their environmental responsibility, it fosters deeper trust, enhances their public image, and ultimately cultivates stronger consumer loyalty.

Despite these clear benefits, the transition to green visual merchandising is still facing significant hurdles, particularly within the luxury fashion industry. Several practical and systemic limitations that hinder this shift are highlighted. Many current sustainable display strategies struggle with low operational feasibility and often fail to align with

actual market driving forces. Furthermore, broader external challenges—such as limited environmental awareness among target consumers, deeply entrenched traditional market cultures, and a notable absence of regulatory intervention or government support—continue to act as barriers. Consequently, the adoption and overall development of sustainable visual merchandising among luxury fashion brands remain sluggish (Wu et al., 2022).

Due to such a situation, after realizing the importance and the responsibility behind, some luxury brands with a long-term vision start to explore sustainable approaches for visual merchandising. For the first and an inevitable step is the design and selection of the visual merchandising props (VM props) and finding accessible suppliers and vendors.

2.2 Sustainable VM Props

Normally, VM props should focus on the aesthetics, interest and functionality to strengthen the window image, which will positively influence customers' attitude towards the fashion brand and affect customers' purchase behavior (Park et al., 2015), increasing the sales of the store (Wang et al., 2021). With the development of visual merchandising, VM props can now perform more. Display elements, such as color, and props on storytelling like emphasizing sustainability, tend to communicate to customers and influence their attitude and brand image (Akhilendra & Aravendan, 2023), which can be classified into decorative props. Also, there are some new trending designs of the VM props such as display fixtures, mannequins and even hangers that contribute to the creation of visual experiences in retail environments with a consumer-centric approach, which can eventually increase consumer satisfaction and impact brand loyalty (Akhilendra & Aravendan, 2023). These VM props can be classified into functional props. Nowadays, some luxury fashion brands do start to design the VM props with a sustainable mindset, for instance, conveying the theme message with environmentally friendly decoration, designing the fixtures with eco-friendly materials,

but for the central approach of the VM props planning and management, sustainable VM props are still far behind. It's common that a guideline book is distributed to the office and store to plan the visual merchandising accordingly (Lakanen, 2016), usually it includes the steps and requirements of the props but lacks the direction of differentiation and technology involvement (Lea - Greenwood, 1998). Therefore, for the sustainability of VM props, it's still not a common part in most luxury fashion brands as the vendor selection is decided by the local office team with former experience or custom and few sustainable goals yet budgets are required for visual merchandising teams.

3. Research Methodology

Based on the current study, suitable models and theories are selected to conduct this research.

3.1 Research Model

3.1.1 Stimulus-Organism-Response (S-O-R) Model

The S-O-R model is a classic conceptual framework in the field of psychology, primarily used to explain the mechanism by which individuals respond to external environmental stimuli. The model posits that when specific stimuli appear in the external environment, organisms tend to directly produce corresponding responses (Mehrabian & Russell, 1974). This model indicates that customers' attitudes are triggered by stimuli, which comes from both internal physiological and psychological factors within the customers and external environmental factors. Under the stimulation of various factors, customers generate motivation. Driven by this motivation, they will evaluate the products, related channels and brands. Sometimes, it would lead to the purchase behavior by the consumers, which would to some extent influence the brand's merchandising and marketing strategy according to the allocation, storage and consumer characteristics (Buckley, 1991). More importantly, the response would probably be related to the brand's image, as customers judge the brand based on the stimuli they get (Hochreiter et al., 2022). Thus, the S-O-R model has been widely used to evaluate consumer behavior and even the consumer psychology towards brands. Generation Y consumer online repurchase intention in Bangkok was evaluated in reference to the S-O-R model and consumer satisfaction and trust were found critical to the online marketing strategies (Zhu et al., 2019). Even how perceived communication source and food value work as stimuli of purchase intention of organic food could be estimated based on the S-O-R model (Sultan et al., 2021). The S-O-R model has also been implemented in sustainable consumption. By using the S-O-R

model, three key factors are introduced: utilitarian value, hedonic value, and salesperson performance to find the drivers of mobile payment adoption. Specifically, it examines how these elements influence customer satisfaction and ultimately shape consumer usage behavior, intended to think about how to achieve sustainable development of mobile payment through customer satisfaction (Chen et al., 2019).

Thereby, the S-O-R model can be used to illustrate the effect of sustainable VM props. In the luxury store, VM props are the role of stimuli. Customers will generate the organisms through the VM props and have a mixed consideration with their initial internal interest towards the brand and finally have a response and attitude to the brand image. Therefore, the S-O-R model helps to build the relationship between sustainable VM props and the brand image from the customers' angle, analyzing the effect of visual merchandising and finding key factors that customers care about.

3.1.2 Aaker's Brand Personality Dimensions

When measuring the brand identity, it's ideal to measure the personality from the brand's side and the brand image from customers' feedback. Then, by comparing results from these two dimensions, whether the strategy is successful can be judged. The five-dimensional theory of brand personality proposed by Jennifer L. Aaker addressed the core issues, the ambiguous definition of brand personality, the chaotic dimensions and the lack of measurement tools. This theory extracts five core dimensions: sincerity, excitement, competence, sophistication, and ruggedness (Aaker, 1997). Here are the related elements that each dimension shows.

3.2 Hypothesis

As visual merchandising appears crucial to luxury brands and the increasing awareness of sustainability among customers and the public. The Hypothesis can be put forward.

H: Sustainable VM props (Stimulus) have a positive effect on luxury brand image (Response).

For the visual merchandising of a fashion retail store, it's regularly divided into window displays and in-store props. From another angle, some VM props are designed to highlight the theme and atmosphere of the store, others are set to play a functional role (Morgan, 2015). For instance, pattern decorations on walls belong to the former one, while models and hangers are the latter part. Thereby, sustainable VM props can be categorized as decorative and functional.

Based on the positioning of luxury brands, the practical characteristics of sustainable visual merchandising, and the five dimensions of Aaker's brand personality, this study focuses on the two core dimensions of Sophistication and Excitement for the evaluation of influence of the VM props, which are the direct aim of luxury brands to implement visual merchandising and can help estimate the effect on the brand image as the organism.

The core competitiveness of luxury brands stems from the high-end identity symbol and aesthetic value carried by Sophistication, as well as the innovative vitality and emotional resonance conveyed by Excitement. From the perspective of dimension compatibility, Sophistication is the essential gene of luxury brands, which can not only align with the essence of upper-class feeling and elegance but also convey the brand's craftsmanship. The Excitement dimension focuses on the brand's innovative expression and emotional stimulation. For customers who are willing to pay attention to the luxury brands, they want to be fashionable through the up-to-date design and style, gaining emotional value at the same time. As a result, the framework model can be simplified to the following structure for the research,

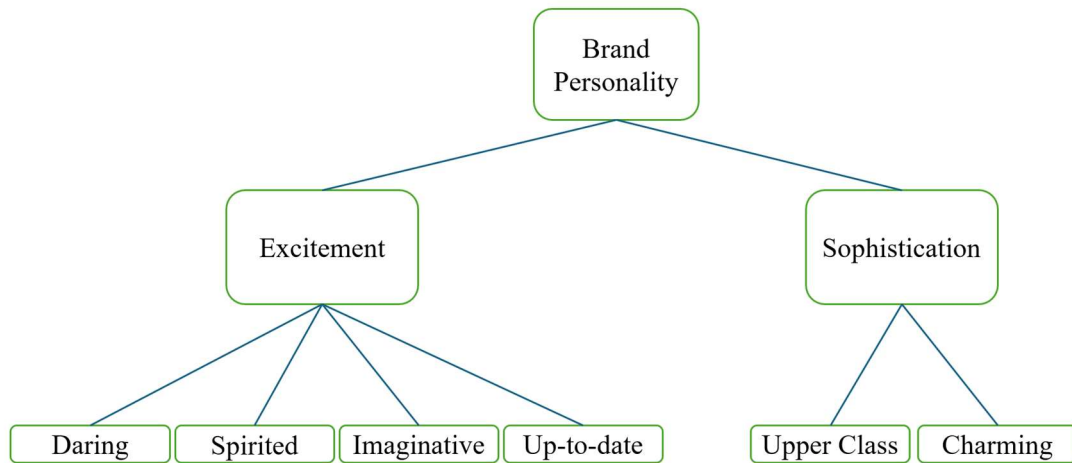


Figure 1 Luxury Brand Personality framework

Thereby, the specific hypothesis can be,

(H1): Decorative sustainable VM props have a positive effect on Brand Image.

(H1-1): Sophistication (Organism) of the Decorative sustainable VM props (Stimulus) has a positive effect on Brand Image (Response).

(H1-2): Excitement (Organism) of the Decorative sustainable VM props (Stimulus) has a positive effect on Brand Image (Response).

(H2): Functional sustainable VM props have a positive effect on Brand Image.

(H2-1): Sophistication (Organism) of the Functional sustainable VM props (Stimulus) has a positive effect on Brand Image (Response).

(H2-2): Excitement (Organism) of the Functional sustainable VM props (Stimulus) has a positive effect on Brand Image (Response).

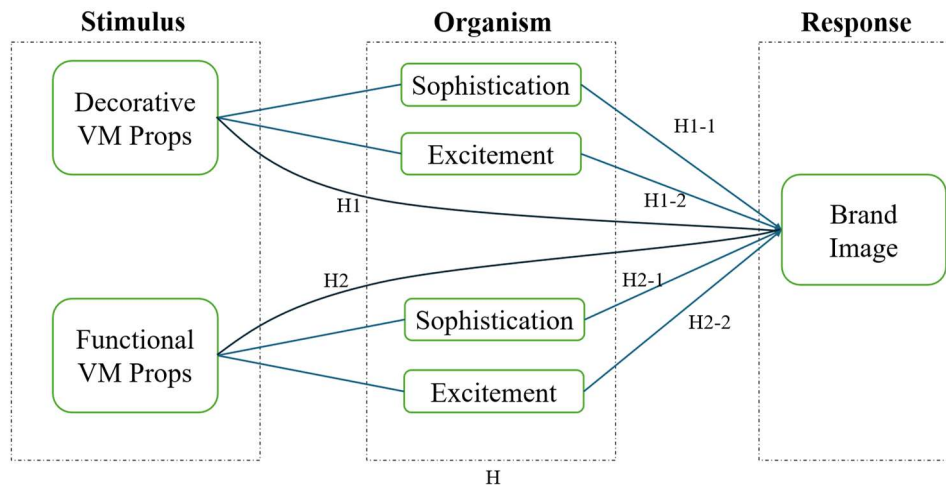


Figure 2 Hypothesis Model

3.3 Research Method

Based on the analysis of sustainable luxury VM props and the research hypothesis, research methodologies are set to fulfill the research aim and objectives. The research will take a study to find out the key factors that luxury brands take into account when designing and planning their sustainable VM props, meanwhile trying to analyze the relationship between the VM props and brand image, assessing the effect, and finally reaching the conclusion: possible ways to optimize sustainable VM props for luxury brands.

(1) Case Study

Collect sustainable VM examples from some famous luxury brands to have an overview understanding of the driving factors for the material/design of luxury sustainable VM props and prepare for the questionnaire survey.

This part is the basis for the latter method as case study can know the situation of visual merchandising in different luxury brands, including their thinking of recycling, upcycling and design ideas. Besides, case study not only provides the thinking for the

questionnaire survey, but also directly analyzes the driving factors that luxury fashion brands care about when designing the sustainable VM props, which ensures the optimization is suitable and practicable.

(2) Questionnaire Survey

After case study from the brand's view, conducting a quantitative questionnaire survey on sustainable VM props to collect feedback from customers, analyzing their attitude towards two dimensions of luxury brand identity (Excitement & Sophistication) to know whether the customer feedback on brand image fits the personality shown by the brand via visual merchandising.

The questionnaire survey innovatively classifies the type of VM props by Scenarios. With pictures and illustrated words, it can offer subjects a sense of truly standing at the window and in the store. Visual merchandising involves every space, environment, and visually stimulating factor (Kim, 2013). All of the VM props coordinately form a whole Scenario of a store. Former research has proved that a museum-like luxury visual merchandising can improve the consumers' purchase intentions as it increases the luxury atmosphere and perceptions on display (Logkizidou, 2016). Meanwhile, the elements like color and lighting of the store can even have an impact on customers (Law et al., 2012), as visibility tends to trigger impulse purchasing (Jayasinghe Arachchige, 2025). Such kinds of findings prove that it's more reasonable to design the questionnaire survey based on Scenarios. Furthermore, customers have different focuses in diversified Scenarios (He et al., 2024), so designing the questionnaire survey on the basis of Scenarios rather than in a typical mode can better find out what customers pay the most attention to, which is helpful for evaluating the performance of sustainable luxury VM props on the brand image.

(3) Thematic Analysis

Thematic analysis serves as the core integrating tool linking the prior case study and questionnaire survey, addressing the one-sided limitations of individual qualitative or

quantitative methods. Have a thematic analysis to integrate factors that luxury brands care and customers’ feedback, proposing possible methods to improve the implementation of sustainable VM props.

Built on cross-stakeholder thematic comparison results, this method comprehensively synthesizes dual-dimensional driving factors of sustainable VM props and assesses the effect of sustainable visual merchandising on customers’ brand perception. More importantly, it consolidates unified, evidence-based optimization proposals for sustainable VM prop implementation. All improvement strategies take both brands’ operational concerns and consumers’ experiential expectations into consideration, thus accomplishing the three core research objectives with integrated brand and customer evidence.

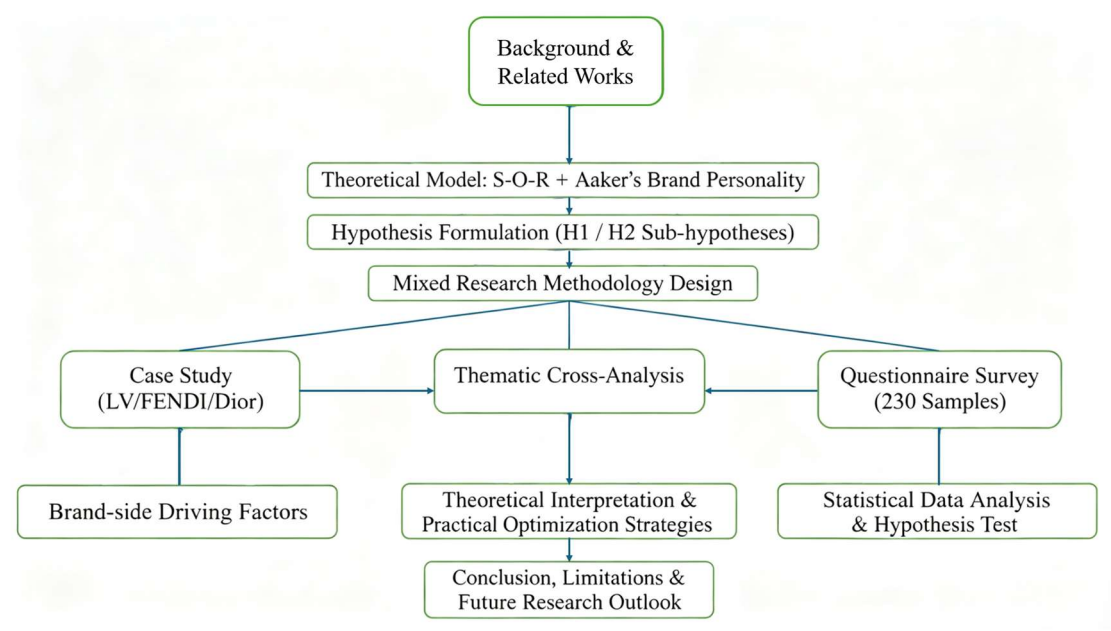


Figure 3 Overall Roadmap of the Research

4. Findings

Here's the findings and outcomes after the implementation of three research methods based on the logic structure of the whole research.

4.1 Case Study

To find out what luxury brands care about in the design and implementation of sustainable VM props, three cases will be analyzed in this research, studying brands' sustainable ways and their goals in visual merchandising.

Case 1: Louis Vuitton

Louis Vuitton aims to reduce the environmental footprint of functional and decorative VM props throughout their life cycle in exhibitions, fashion shows and their stores.

(1) Reducing the use of raw materials on functional VM props

The Louis Vuitton Women's Fall-Winter 2022 fashion show took place at the Musée d'Orsay in Paris, requiring no additional structural construction. The place LV chose highlighted their original brand story, showing their royal demeanor and particular, gorgeous brand image. Emphasizing no additional structural construction aimed to tell customers and the public that the show wouldn't create any construction waste, reflecting LV's effort towards sustainability. Meanwhile, the show gave a second life to 150 chairs that were previously used for the Women's Spring-Summer 2021 show. The only production required was for 420 additional seats made of wood from sustainably managed forests, which would be reused in accordance with sustainability commitments. LV mentioned the material and origin of the chairs used for the fashion show, again sticking to their goal to reduce environmental footprint.

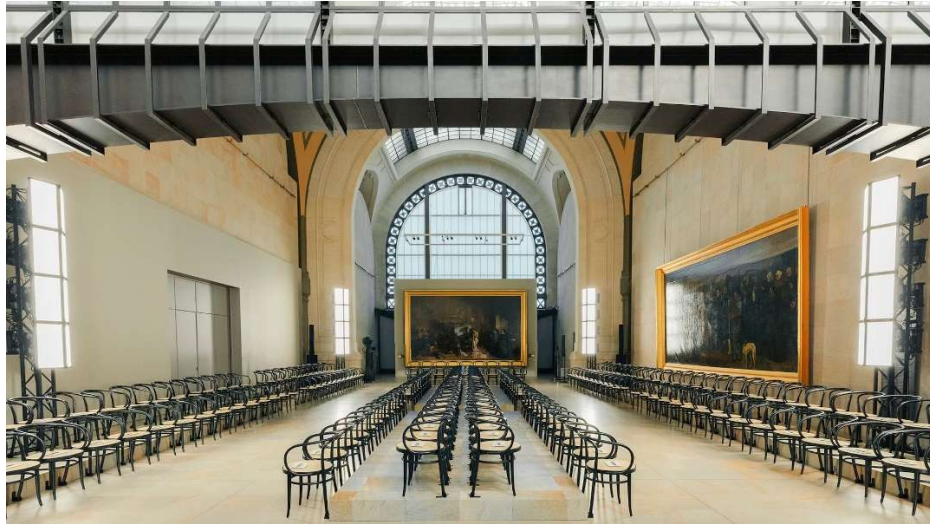


Figure 4 Louis Vuitton Women's Fall-Winter 2022 fashion show

(2) Reducing the use of raw materials on decorative VM props

Louis Vuitton takes an eco-design approach to reduce the environmental impact of their window displays and in-store visual merchandising. For instance, the flowers that adorned the store in Europe for Fall 2022 were made from recycled plastic, which, following the brand's aim towards sustainability, limits the production of additional plastic and therefore minimizes the use of virgin resources.

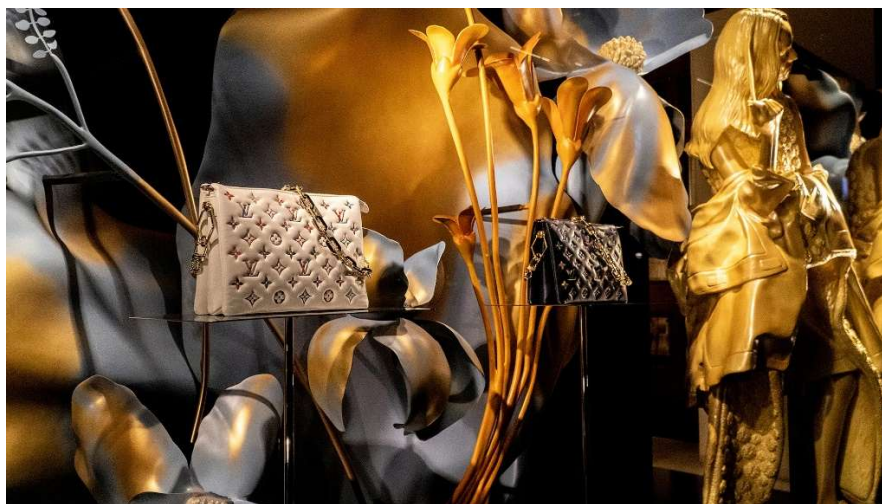


Figure 5 Louis Vuitton Fall 2022 Window

In summary, Louis Vuitton has initiated sustainable visual merchandising since 2019

and in 2022 the green materials they used for both functional and decorative props reached 92% for the first time. For typical shows in 2022, LV even recycled or donated all of their materials and elements. Louis Vuitton believes that being sustainable is their brand's responsibility and can help them be creative continuously, which is not only their brand's spirit but can also enhance their brand image among the public. However, even though reusing 700m² of their fashion show floor can, to some extent, save some cost of their visual merchandising and operation, Louis Vuitton just achieved around 60% valuation performance in the fourth year of their sustainable program. Therefore, in addition to brand spirit and responsibility, performance is becoming an increasingly important factor.

Case 2: FENDI

In alignment with FENDI's direction to ensure a commitment to protecting the environment, FENDI's window props vendors have started exploring responsible alternatives in materials, aiming to mitigate potential environmental impacts associated with visual merchandising. To reach the target, FENDI increased the usage of new recycled materials, opted for certified production processes and implemented responsibly crafted packaging for shipment.

(1) Recycling & Upcycling

During the 2022 Winter Capsule Collection, FENDI showcased its representative sustainable window display design concept at its store on Via Montenapoleone in Milan, Italy. This visual merchandising project transformed leftover fur scraps into exquisite fur forest trees for holiday displays. After the displays were over, these furs were further processed into 19 exclusive items inspired by the baguette bag, with 8 pieces each in green and pink. Since November 2023, 15 of these items have been sold in FENDI's flagship stores in Rome, London, and Paris. Natural materials played a central role in this process, with woods, metals, acrylics, and other materials being carefully collected, processed, and reused to create new works. For example, metal components were

separated, melted, and remolded into new raw materials, while plastics and resins were not discarded but were pressed and ground into the basic raw materials for recycled plastic materials.

FENDI's VM team has adopted innovative ways for post-windows setup, introducing the Recycling & Upcycling initiative since 2021. This scheme is proposed to minimize the environmental impact of window displays by employing practices such as recycling, upcycling, downcycling or the disposal of window props. At the same time, it actively contributes to minimizing landfill waste and benefits the local community. With the plan begun in 2021, FENDI not only demonstrates their responsibility for the natural environment but also pays attention to society and the public, which reflects their emphasis on people's feedback.

(2) Lifespan Extension

Meanwhile, FENDI also focused on extending the life of materials beyond basic recycling. They took wooden panels originally used for window displays and repurposed them into custom bookshelves, turning those temporary setup pieces into something practical that could last for years. Even acrylic parts found new roles in decorative items and art installations, showing clearly that luxury-grade materials don't have to be thrown away after a single use.

(3) ESG Collaboration on Decarbonization

Furthermore, the collaboration with the GIGA Consultancy firm in 2024 better supports FENDI's VM decarbonization roadmap. GIGA is an international organization that integrates building standard development, scientific research, and cloud technology. Places a premium on data quality and practical applicability, GIGA also excels at conducting large-scale, ongoing assessments of high-quality performance data. In addition, GIGA's standards and supporting tools assist real estate decision-makers in developing and managing buildings that meet rigorous ESG (Environmental, Social, Governance) performance criteria. With the data analysis, FENDI can have a clear,

scientific and efficient overview of their VM scheme, which is helpful for them to meet the government's standard, the brand's own target and customers' expectations.

Summarily, FENDI endeavors to achieve its goal via recycling and extending the life of green materials in props design and implementation. They ensure innovation through cooperation with higher-standard vendors during manufacturing, wrapping and logistics. With scientific quantification management, FENDI continues to integrate circular economy principles into every aspect of visual merchandising.

Case 3: Dior

In 2023, Dior's Visual Merchandising team created a fantastic installation from surplus materials to mark the first anniversary of its reopened 30 Montaigne flagship. The design was later reused for the brand's window displays and even incorporated into its runway set designs.

Later in 2024, Dior's new window displays are a testament to creative sustainability. The core of the installation consists of exquisitely detailed paper sculptures inspired by the natural world, including elegant animals, delicate marine life, and lush botanicals. These handcrafted elements are then transformed by a sophisticated lighting system, which uses everything from soft, warm glows to precise light mapping to create depth, movement, and focus. This clever pairing of sustainable materials with advanced lighting technology not only produces stunning visual effects but also powerfully articulates the brand's modern, eco-aware identity.



Figure 6 Dior's 2024 Paper Crafts Store Display Innovation

Dior defines sustainable visual merchandising as a masterful act of fusion, craftsmanship, technology, and an eco-conscious brand heritage. The strategy includes upcycling materials like surplus stock and eco-friendly paper, elevating them into art forms via meticulous craftsmanship and artistic collaboration. These nature-inspired creations are then animated by sophisticated lighting, merging static artistry with dynamic technology to craft a fantasy world. This proves that sustainability is a drive for luxury brands to show their innovation, beauty, and responsibility.

In conclusion, sustainable visual merchandising has become a strategic instrument for enhancing brand identity among luxury fashion brands, and its primary driver is the integration of diverse VM props. Luxury fashion brands tend to place greater emphasis on the materials used in VM props to demonstrate their responsibility and innovation. Through extending the life of props, like reusing actions from Louis Vuitton's fashion show plan to functional props, recycling and upcycling for practical props from Fendi visual merchandising team and natural sourcing window and in-store display from Dior, luxury fashion brands are now trying colorful methods to make efforts on upgrading the VM props to a higher and more sustainable value. Thereby, they tend to have a

higher standard when it comes to collaboration. Brands or vendors with a higher sustainable level would more likely be chosen from luxury brands, which also been proven at the pop-up events. Besides, even some responsible consultants are welcomed by the luxury brands as they can provide clear data and schemes which are not only helpful for the brand's target but also good for controlling. The goal of these approaches is to receive a good response about the brand identity from the public. They want to show their own brand's personality about sophistication, trying to convey their innovative message to customers, thus shaping a spirit of craftsmanship, which is unique and crucial for luxury brands. However, even though luxury fashion brands are now paying a lot of attention to the sustainability of visual merchandising, they still cannot neglect the budget control and incidental economic impact. Reducing overuse of extra materials in a more reasonable way, luxury brands are gradually stepping into the circular economy via a more practical approach that is aware of performance and efficiency.

4.2 Questionnaire Survey

4.2.1 Sampling and Data Collection

For this research, the questionnaire survey was released through Credamo with the QR code to share among friends and family and the survey link to spread through the Credamo database market.

Table 1 Descriptive Data of Basic Information

Variables	Category	Frequency	Percentage
Q1	Very frequently	98	42.06%
	Frequently	86	36.91%
	Sometimes	25	10.73%
	Rarely	18	7.73%
	Never	6	2.58%
Q2	18-24	74	32.17%
	35-44	66	28.70%
	25-34	60	26.09%
	45-54	17	7.39%
	55 and above	13	5.65%
Q5	Yes	176	76.52%
	No	54	23.48%
Q1_4	female	152	66.09%
	male	78	33.91%
Q2_4	Mainland China	221	96.09%
	Hong Kong,	7	3.04%
	Macao, China	1	0.43%
	Overseas (in UK)	1	0.43%

Table 2 Q3 &. Q4 Distribution Table

Variables	Number of samples	Median	Mean	95% confidence interval	Std. deviation	Min	Max
Q3	230	6.00	5.41	[3.00,7.00]	1.21	1.00	7.00
Q4	230	6.00	5.73	[2.00,7.00]	1.31	1.00	7.00

This study collected and analyzed 230 valid samples, with the majority of respondents being young and middle-aged females from mainland China. Over 79% of participants reported moderate to high attention to sustainable luxury fashion and visual merchandising, indicating a generally high level of engagement. Numerical ratings for Q3 and Q4 averaged 5.41 and 5.73 (on a 1–7 scale), respectively, showing a moderate-to-upper tendency with stable distributions and no extreme values.

4.2.2 Data Analysis

To find out how VM props influence the customers' attitude towards brand image. The data analysis process includes reliability and validity analysis, descriptive analysis, correlation analysis and PLS regression analysis.

(1) Reliability analysis

Table 3 Two Scenarios Reliability Analysis of Excitement &. Sophistication

Number of Samples	Items	Cronbach's α coefficient	Standardized Cronbach's α coefficient
230	Q1_1 - Q4_1	0.822	0.823
230	Q5_1 - Q8_1	0.817	0.817
230	Q1_2 - Q4_2	0.788	0.793
230	Q5_2 - Q8_2	0.807	0.807

According to the reliability analysis in Table 3, the Cronbach's alpha coefficients of the model are all above 0.7, indicating that the internal consistency of the items is excellent and the data reliability is ideal, which can be used for further analysis.

(2) Validity Analysis

Table 4 Two Scenarios Validity Analysis of Excitement &. Sophistication

Number of samples	Items	KMO value	P Value
230	Q1_1 - Q4_1	0.794	0.000
230	Q5_1 - Q8_1	0.782	0.000
230	Q1_2 - Q4_2	0.792	0.000
230	Q5_2 - Q8_2	0.794	0.000

According to the validity analysis of Table 4, all of the KMO values are between 0.7 and 0.8. Additionally, according to the results of Bartlett's test of sphericity, the significance p-values are 0.000 (< 0.05), indicating that the data is suitable for extracting information with good validity.

(3) Descriptive analysis

Table 5 Descriptive Data of Scenario A

Variables	Number of samples	Median	Mean	95% confidence interval	Std. deviation	Min	Max
Q1_1	230	6	6.04	[4.00,7.00]	0.95	1	7
Q2_1	230	6	5.93	[4.00,7.00]	0.95	3	7
Q3_1	230	6	5.53	[2.73,7.00]	1.19	2	7
Q4_1	230	6	5.77	[3.00,7.00]	1.13	1	7
Q5_1	230	6	5.9	[4.00,7.00]	1.03	1	7
Q6_1	230	6	5.97	[4.00,7.00]	1.02	1	7
Q7_1	230	6	5.83	[3.00,7.00]	1.09	1	7
Q8_1	230	6	5.98	[4.00,7.00]	1.02	2	7

According to Table 5, it's obvious that all mean values are far above the neutral point 4, showing that decorative sustainable VM props significantly boost consumers' perception of Excitement and Sophistication.

Table 6 Descriptive Data of Scenario B

Variables	Number of samples	Median	Mean	95% confidence interval	Std. deviation	Min	Max
Q1_2	230	6	6.06	[4.00,7.00]	0.88	3	7
Q2_2	230	6	5.72	[3.00,7.00]	1.17	2	7
Q3_2	230	6	6	[4.00,7.00]	0.96	2	7
Q4_2	230	6	5.93	[4.00,7.00]	0.97	2	7
Q5_2	230	6	5.83	[4.00,7.00]	0.92	2	7
Q6_2	230	6	6	[4.00,7.00]	0.87	3	7
Q7_2	230	6	5.92	[4.00,7.00]	0.99	2	7
Q8_2	230	6	6.01	[4.00,7.00]	0.98	1	7

As illustrated in Table 6, functional and sustainable VM props received highly favorable feedback. Consumers associate these sustainable functional props with a brand's forward-looking vision and creativity. Crucially, this approach harmonizes environmental responsibility with a luxury experience, proving that high quality and sophisticated brand identity are perfectly integrated. Ultimately, compared to purely decorative props, functional VM props perform better in communicating a brand's commitment to social responsibility.

(4) Correlation Analysis

Table 7 Correlation Analysis between Organism and Response

	Q1_1	Q2_1	Q3_1	Q4_1	Q5_1	Q6_1	Q7_1	Q8_1	Q1_2	Q2_2	Q3_2	Q4_2	Q5_2	Q6_2	Q7_2	Q8_2	Q1_3
Q1_1	1.0000	0.4699	0.5130	0.5382	0.4166	0.3792	0.4617	0.5444	0.3316	0.4141	0.4159	0.3863	0.3601	0.3262	0.2754	0.4255	0.4259
Q2_1	0.4699	1.0000	0.4866	0.5747	0.5639	0.4883	0.5490	0.5099	0.5214	0.5111	0.4961	0.4243	0.4030	0.4152	0.4816	0.4587	0.4831
Q3_1	0.5130	0.4866	1.0000	0.6466	0.6023	0.5096	0.5840	0.5996	0.4501	0.5500	0.4777	0.5570	0.5036	0.4442	0.5501	0.5290	0.6053
Q4_1	0.5382	0.5747	0.6466	1.0000	0.5922	0.5379	0.6294	0.5604	0.4327	0.5441	0.4468	0.5305	0.4425	0.3775	0.4761	0.4877	0.5675
Q5_1	0.4166	0.5639	0.6023	0.5922	1.0000	0.4526	0.5577	0.5512	0.3959	0.3570	0.2895	0.4007	0.4506	0.3580	0.3725	0.4269	0.4795
Q6_1	0.3792	0.4883	0.5096	0.5379	0.4526	1.0000	0.6097	0.4441	0.4119	0.4215	0.3793	0.4616	0.4580	0.4178	0.4665	0.4768	0.4728
Q7_1	0.4617	0.5490	0.5840	0.6294	0.5577	0.6097	1.0000	0.5463	0.3434	0.5139	0.3835	0.4964	0.4007	0.4507	0.4258	0.4963	0.5662
Q8_1	0.5444	0.5099	0.5996	0.5604	0.5512	0.4441	0.5463	1.0000	0.4497	0.4508	0.4141	0.4697	0.4624	0.3728	0.3843	0.4626	0.5149
Q1_2	0.3316	0.5214	0.4501	0.4327	0.3959	0.4119	0.3434	0.4497	1.0000	0.4445	0.4877	0.5126	0.4580	0.5082	0.4898	0.5327	0.4720
Q2_2	0.4141	0.5111	0.5500	0.5441	0.3570	0.4215	0.5139	0.4508	0.4445	1.0000	0.4879	0.5074	0.4827	0.4017	0.4809	0.5191	0.5581
Q3_2	0.4159	0.4961	0.4777	0.4468	0.2895	0.3793	0.3835	0.4141	0.4877	0.4879	1.0000	0.4965	0.3381	0.4697	0.4653	0.4456	0.4647
Q4_2	0.3863	0.4243	0.5570	0.5305	0.4007	0.4616	0.4964	0.4697	0.5126	0.5074	0.4965	1.0000	0.4621	0.5419	0.5715	0.6341	0.4427
Q5_2	0.3601	0.4030	0.5036	0.4425	0.4506	0.4580	0.4007	0.4624	0.4580	0.4827	0.3381	0.4621	1.0000	0.4382	0.5005	0.5693	0.4562
Q6_2	0.3262	0.4152	0.4442	0.3775	0.3580	0.4178	0.4507	0.3728	0.5082	0.4017	0.4697	0.5419	0.4382	1.0000	0.5027	0.5111	0.4255
Q7_2	0.2754	0.4816	0.5501	0.4761	0.3725	0.4665	0.4258	0.3843	0.4898	0.4809	0.4653	0.5715	0.5005	0.5027	1.0000	0.5462	0.4845
Q8_2	0.4255	0.4587	0.5290	0.4877	0.4269	0.4768	0.4963	0.4626	0.5327	0.5191	0.4456	0.6341	0.5693	0.5111	0.5462	1.0000	0.4684
Q1_3	0.4259	0.4831	0.6053	0.5675	0.4795	0.4728	0.5662	0.5149	0.4720	0.5581	0.4647	0.4427	0.4562	0.4255	0.4845	0.4684	1.0000

$$p = 0$$

The analysis of Table 7 confirms the robustness of the research model, with all indicators exhibiting significant positive correlation ($p < 0.01$) and strong convergent validity. Specifically, the high internal correlation within the decorative and functional prop items validates the conceptual division of the Excitement and Sophistication dimensions. More importantly, both categories of sustainable VM props positively correlate with overall brand image, fully validating the core hypothesis that eco-friendly visual merchandising enhances luxury brand perception. Ultimately, the data reveals that the emotional resonance triggered by these displays serves as the single most critical driver in shaping how consumers perceive the brand.

(5) PLS Regression

PLS regression is a kind of multivariate statistical modeling method, perfectly suited for questionnaire datasets that suffer from strong multicollinearity and heavily interrelated predictor variables (X). It works by extracting latent variables, with the core

goal of capturing and explaining the largest possible variance within the dependent variable (Y). PLS regression can resolve multicollinearity issues. It maintains stable model outputs even when questionnaire indicators, such as different sub-dimensions measuring satisfaction, show high correlation with one another. Therefore, it's suitable for the scenario analysis of this questionnaire survey.

Table 8 Predictor VIP (Variable importance in projection) of Scenario A

Variables	Factor1
Q1_1	0.823
Q2_1	0.934
Q3_1	1.170
Q4_1	1.097
Q5_1	0.927
Q6_1	0.914
Q7_1	1.094
Q8_1	0.995

Table 8 indicates the importance of Sophistication and Excitement from decorative VM props in explaining Brand Image across different numbers of components. Based on the VIP score, for decorative VM props, Sophistication and Excitement variables have much the same role in explaining Brand Image. For the 3 questions, VIP score greater than 1, they have a relatively larger role in explaining the latent factors rather than the question scores 0.823 and should be paid attention to when designing the decorative VM props.

Table 9 Model Coefficients Results of Scenario A

	Q1_3
Constant	6.017
Q1_1	0.089
Q2_1	0.101
Q3_1	0.127
Q4_1	0.119
Q5_1	0.100
Q6_1	0.099
Q7_1	0.118
Q8_1	0.108

Table 9 shows PLS model results and coefficients, used to study the relationship between the independent variables X (Sophistication and Excitement from decorative VM props) and the dependent variables Y (Brand Image).

The standardization formula of the model is:

$$Q1_3 = 6.017 + 0.089 * Q1_1 + 0.101 * Q2_1 + 0.127 * Q3_1 + 0.119 * Q4_1 + 0.100 * Q5_1 + 0.099 * Q6_1 + 0.118 * Q7_1 + 0.108 * Q8_1$$

Table 10 Predictor VIP (Variable importance in projection) of Scenario B

Variables	Factor1
Q1_2	0.998
Q2_2	1.180
Q3_2	0.983
Q4_2	0.936
Q5_2	0.965
Q6_2	0.900
Q7_2	1.024
Q8_2	0.990

Table 10 suggests the importance of Sophistication and Excitement from functional VM props in explaining Brand Image across different numbers of components. Based on the VIP score, Sophistication and Excitement variables have much the same role in explaining Brand Image for functional VM props. For the 2 questions, VIP scores greater than 1 have a relatively larger role in explaining the latent factors and should be paid attention to when designing the functional VM props.

Table 11 Model Coefficients Results of Scenario B

	Q1_3
Constant	6.017
Q1_2	0.106
Q2_2	0.125
Q3_2	0.104
Q4_2	0.099
Q5_2	0.102
Q6_2	0.095
Q7_2	0.108
Q8_2	0.105

Table 11 shows PLS model results and coefficients, which can be used to study the relationship between the independent variables X (Sophistication and Excitement from functional VM props) and the dependent variables Y (Brand Image).

The standardization formula of the model is:

$$Q1_3 = 6.017 + 0.106 * Q1_2 + 0.125 * Q2_2 + 0.104 * Q3_2 + 0.099 * Q4_2 + 0.102 * Q5_2 + 0.095 * Q6_2 + 0.108 * Q7_2 + 0.105 * Q8_2$$

Table 12 Predictor VIP (Variable importance in projection) of Both Scenarios

Variables	Factor1
Q1_1	0.859
Q2_1	0.974
Q3_1	1.221
Q4_1	1.145
Q5_1	0.967
Q6_1	0.954
Q7_1	1.142
Q1_2	0.952
Q2_2	1.126
Q3_2	0.937
Q4_2	0.893
Q5_2	0.920
Q6_2	0.858
Q7_2	0.977
Q8_2	0.945
Q8_1	1.039

Putting together, Table 12 suggests that Sophistication and Excitement variables have much the same role in explaining Brand Image for VM props. For the questions, VIP

scores greater than 1 should be paid attention to when designing VM props, rather than those with scores lower than 0.9.

4.3 Thematic Analysis

After the case study based on the brand's concept about the design of VM props and the questionnaire survey of customers' feedback on the sustainable VM props' influence to luxury brand image, the highlighted factors for the design of sustainable luxury VM props can be concluded and proposals can be raised as well.

4.3.1 Driving Factors of Sustainable VM Props

For the luxury brand, a good brand identity is crucial. As a result, luxury brands tend to focus more on demonstrating strong responsibility for sustainability and innovation. They want to show their own value through sustainable visual merchandising so luxury fashion brands also emphasize sophistication especially craftsmanship to convey uniqueness and upper-class value. At the same time, luxury brands also pay attention to the economy. Circular economy and operational cost control are necessary nowadays. Almost all luxury brands hold careful budget control and follow their own visual merchandising guidelines to ensure ROI and good performance.

From customers, they can both be influenced by the Sophistication and Excitement of the decorative and functional sustainable VM props and have a good attitude towards brand image. When looking into the details that customers care about, it's obvious that luxury fashion brands and their customers have almost the same thinking about sustainable VM props. Besides they both pay attention to the sophistication of VM props, through the data of the questionnaire survey keywords like innovative, uniqueness and brand responsibility are all highlighted by customers. They want luxury fashion brands to offer more imaginative elements for them to explore, feel and enjoy the in-store journey with the excitement from sustainable VM props as well.

4.3.2 Proposals about Luxury Sustainable VM props

Integrating key points that luxury fashion brands care about and that customers focus on, the following proposals can be raised for luxury fashion brands:

(1) Standardizing vendor collaboration

Luxury brands could place fragmented local planning under a unified, global list just like the VM guideline book. This starts with creating a database of premium, cost-effective vendors—categorized clearly for either functional or decorative store use—and securing them through audited, ESG certification to guarantee full material traceability. The process could be repeated in a period with the collaboration of the headquarters and local team to ensure the update of the vendor list. This guideline should involve strict reuse and recycling protocols, drawing on circular models like Fendi's to eliminate waste and lower long-term operating overhead. To keep these initiatives commercially viable, brands can partner with ESG consultants to deploy carbon accounting and ROI tracking tools, ensuring that environmental steps don't balloon retail budgets.

(2) Crafting Immersive Sustainable Visual Merchandising Theme

Luxury fashion brands should weave green practices directly into the physical store experience. Rather than relying on isolated eco-friendly props, they can design fully themed, immersive environments just like the Dior marine-recovery, some environmentally friendly motif, energy-efficient lighting with color highly related to the theme of the series, using soft, reflective natural materials like wood, recycled paper and acrylic to maintain a premium feel and ensure they do not deviate from the design theme. Brands can further minimize physical waste by designing VM props with surplus clothing materials. Ultimately, this eco-aesthetic can extend beyond window displays into the in-store functional props, including hangers, models and even seats, ensuring that every accessible prop reinforces a genuine commitment to not only

clothing design but also sustainability.

(3) Strengthening Value Communication and Customer Interaction

Luxury brands should showcase their sustainable efforts through meticulous and transparent details. In-store scenarios, this means allowing high-quality materials and exquisite craftsmanship to naturally come through. Through hidden QR codes or minimalist labels, combined with visual displays, the actual sourcing, recycling processes, and carbon data behind the items are presented to customers. This approach can be further amplified through social media campaigns, integrating online interactions with in-store experiences. Ultimately, the brand proves that its environmental commitment is a consistent practice rather than a superficial marketing tactic by providing complete supply chain data and ensuring that these physical display contents are publicly accessible. With integrated communication, customers can explore more continuously by themselves with curiosity and the feeling of being upper-class, as they show responsibility for sustainability with unique ways and more interactive actions.

(4) Incorporate Sustainable DNA into Visual Merchandising

To truly embed sustainability into visual merchandising, sustainable practices should be considered at every moment, every time of visual merchandising. From the sourcing stages of VM props suppliers to the final combination and implementation of different types of props, VM teams should be innovative, making sustainability indistinguishable from the brand's VM culture. Finally, the visual merchandising serves as the physical storyteller for the brand's sustainable concept, sophistication and craftsmanship. By continuously refining visual merchandising based on direct customers' feedback, luxury brands can ensure their signature remains both green and full of aesthetic.

5. Discussion

The practical value of this study can be shown in the theory structure, research methodology and the innovative contribution.

5.1 Theoretical Interpretation

The research adopts the classic S-O-R model as the core analytical logic, dividing sustainable VM props into decorative and functional stimulus categories, selecting Sophistication and Excitement from Aaker's brand personality scale as organism and overall luxury brand image as response. All proposed hypotheses are fully verified by 230 valid questionnaire samples, which provide clear empirical evidence for the chain between sustainable VM props and customers' attitudes towards the brand.

From a stimulus dimension perspective, both decorative VM props and functional props can independently activate consumers' dual-brand personality perceptions. Descriptive statistics show that the average scores across all measurement items are well above the neutral midpoint of 4 on a 7-point scale, indicating that consumers do not regard sustainable display materials as a compromise of luxury texture. Different from previous literature that only discusses single-type sustainable VM cases, this study distinguishes decorative and functional props and finds their respective action paths. This supplements the existing sustainable retail research that rarely classifies VM props by usage attributes, expanding the application boundary of the S-O-R model in luxury visual merchandising scenarios.

At the organism layer, Sophistication and Excitement show strong mutual correlation and jointly drive positive brand image feedback. VIP values of PLS regression indicate both dimensions occupy nearly equal explanatory weight for brand image. Many prior sustainable fashion studies only focus on brand responsibility and ethical value, ignoring the aesthetic and innovative requirements unique to luxury segments. This paper proves that sustainability cannot be separated from luxury's core personality traits;

eco-friendly materials and circular design will only generate positive brand feedback when they match the brand's elegant, innovative positioning.

5.2 Systematic Analysis of Brand Practice and Customer Attitude

The three core brand cases (Louis Vuitton, FENDI, Dior) extract the practical logic of luxury brands in sustainable visual merchandising, when the questionnaire survey reflects the real attitude of customers. Thematic analysis finds obvious overlapping core demands between brands and customer.

First, both sides attach great importance to material circularity and upcycling design. LV's repeated reuse of fashion show facilities, FENDI's transformation of leftover fur materials into window art and peripheral products, and Dior's surplus raw material paper sculptures all focus on the circular economy. Correspondingly, questionnaire respondents give high scores to statements about "recycled props enhance brand innovation and taste". Customers equate material reuse with brand craftsmanship and forward-thinking vision, which align with brands' intention to convey environmental responsibility through circular VM.

Meanwhile, the integration of sustainability and brand aesthetics is a shared core pursuit. Luxury brands refuse crude, low-grade eco-materials; all three cases adopt refined processing, professional lighting matching and artistic modeling to avoid damaging elegant store atmosphere. Customers also clearly express in the survey that sustainable props should not influence the luxurious store environment. This consensus breaks the stereotype that "environmental protection equals simple design", confirming the core premise of luxury VM props: sustainable design must be built on premium aesthetic expression.

5.3 Contributions and Innovation

Existing relevant studies can be roughly divided into two categories: one type carries out qualitative case sorting of sustainable VM practices of fashion brands, only summarizing material and design forms without quantifying consumer perception effects; the other focuses on general fast fashion retail, lacking targeted discussion of luxury brands with unique brand personality and high aesthetic thresholds. This paper combines qualitative case analysis, quantitative questionnaire survey and thematic integration analysis, forming a mixed-method research framework exclusive to luxury sustainable visual merchandising.

Different from previous single-perspective research (brand operation or consumer feedback), this study simultaneously incorporates the dual perspectives of brand side and customer side, identifying overlapping demands, so the optimization strategies proposed are more operable, rather than empty theoretical suggestions. In addition, few past studies split VM props into decorative and functional categories for separate effect testing; this classification enriches the dimensional division system of visual merchandising stimulus factors.

6. Conclusion

Drawing on S-O-R theory and Aaker's brand personality model focused on Sophistication and Excitement, this research examines how decorative and functional sustainable VM props in luxury stores act as environmental triggers, altering and lifting customers' perceptions of brand image. Combining case analysis of Louis Vuitton, FENDI and Dior alongside valid survey responses from 230 luxury consumers, results show both decorative and functional VM props boost perceived brand Sophistication and Excitement, which form up the overall luxury fashion brand identity.

This study not only analyzes the driving factors for the material/design of luxury sustainable VM props but also assesses the performance of two types of sustainable luxury VM props. Finally, luxury fashion brands and customers share some overlapping core demands for sustainable VM design, yet most luxury brands still lack some unified global sustainable visual merchandising system and related budget and vendor lists. The questionnaire survey data fully backs the paper's core hypotheses, though customers' responses reveal varying sensitivity to sustainable visuals across age and regional groups. This work enriches research on sustainable luxury visual merchandising and delivers practical VM improvement suggestions for luxury brands, while pointing out directions for follow-up research with wider sample ranges.

However, the research also has some shortcomings. First, due to the lack of brand information and data, it's hard to measure brands' detailed supplier level and carbon footprint. Meanwhile, the survey sample is mainly young and middle-aged female consumers from China mainland, lacking enough elder and overseas participants to compare group perception gaps. Furthermore, it's also uneasy to quantify the scenarios to analyze the whole S-O-R model more carefully, so the hypothesis validation is based on descriptive analysis, relative analysis and regression between organism and response. Therefore, later studies can gather wider ranges of samples and try to quantify VM props as stimulus. It's recommended to cooperate with some typical luxury fashion

brands to get more detailed information about sustainable visual merchandising in order to find out more about the co-relationships such as the accessibility or budget and VM plans as well. Also, the overall carbon and environmental footprints of VM props are suggested to be explored for the sustainable development of luxury visual merchandising.

Appendix

Questionnaire Survey

Introduction & Study Information

Hello,

Thank you very much for taking the time to participate in this academic study.

This questionnaire aims to explore **how the use of sustainable materials (such as recycled or upcycled materials) in luxury brands' in-store visual merchandising affects brand image**. We hope to understand how your perception of a brand is influenced by sustainable visual merchandising props (such as window displays, installations, display stands, hangers, etc.).

The questionnaire consists of three parts and will take approximately 5–10 minutes to complete. All responses are strictly anonymous and will be used for academic analysis only. Please feel free to answer based on your true feelings and experiences.

Your insights are crucial to this research. Thank you again for your support!

Part 1: Screening Information & Attention Level

1. **How often do you follow information related to luxury brands (e.g., LV, Dior, Fendi), including physical stores and online updates?**
 - ☐ ☐ Very frequently
 - ☐ ☐ Frequently
 - ☐ ☐ Sometimes
 - ☐ ☐ Rarely
 - ☐ ☐ Never
2. **What is your age group?**

- ○ Under 18 (*If selected, the questionnaire will end here*)
 - ○ 18–24
 - ○ 25–34
 - ○ 35–44
 - ○ 45–54
 - ○ 55 and above
3. **To what extent do you pay attention to topics related to “sustainable development” or the “green/sustainable economy”?**
(1 = Not at all, 7 = Very much)
 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○
4. **How important do you think it is for luxury brands to embrace “sustainable development”?**
(1 = Not important at all, 7 = Very important)
 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○
5. **Have you ever noticed sustainable visual merchandising props in luxury brand stores (e.g., props labeled as eco-friendly, decorations made from recycled materials, etc.)?**
- ○ Yes
 - ○ No

Part 2: Perception Evaluation in Specific Scenarios

Below are two scenarios. Please read each description carefully and rate your level of agreement with the statements based on your intuitive feelings.

Rating scale: 1 = Strongly disagree, 2 = Disagree, 3 = Somewhat disagree, 4 = Neutral, 5 = Somewhat agree, 6 = Agree, 7 = Strongly agree

Scenario A: Decorative Sustainable Visual Merchandising



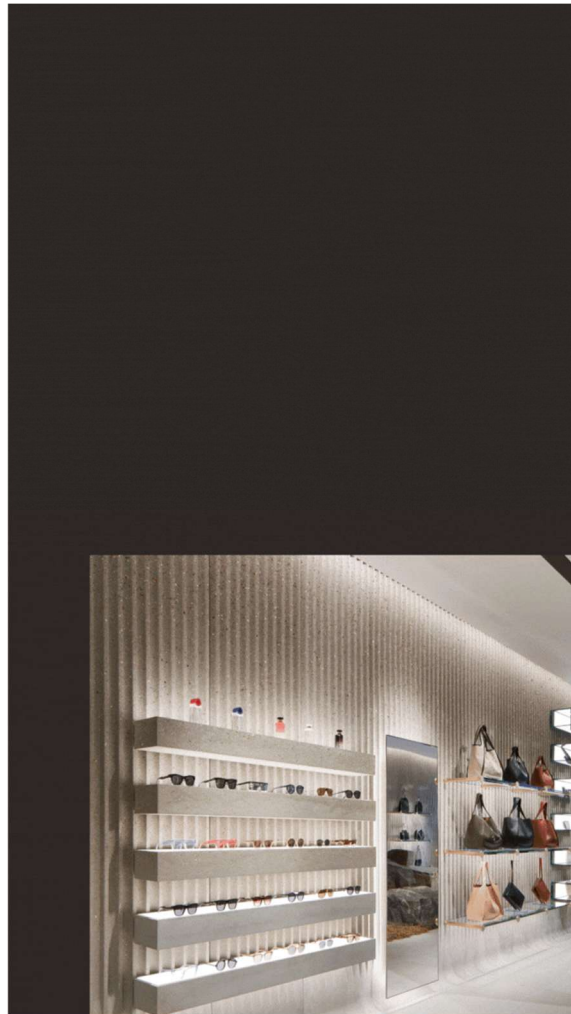
Scenario description:

Dior's 2024 collection centered on the theme of "**Return to Nature.**" The installation is crafted from **eco-friendly paper**, which includes handcrafted sculptures of animals, marine life, and botanicals—from graceful swans and mysterious panthers to vibrant corals and classic Dior roses. A soft and warm lighting system that uses **eco-friendly LED strips and precise light mapping** aims to innovatively create a vibrant atmosphere.

Please evaluate your perception based on this type of “decorative” sustainable visual merchandising:

[illegible]

Scenario B: Functional Sustainable Visual Merchandising



Scenario description:

The design of the Stella McCartney flagship store at 23 Old Bond Street, London, fully shows the philosophy of **circularity and recycling**. The walls are crafted from **recycled office paper**, plinths and hangers are made from **reclaimed wood**, and the seating is recreated from **recycled foam**. Even the elevator is decorated with **reused faux fur materials**. The in-store mannequins are made from **low-emission bioplastics**, with a surface coating composed of 72% sugarcane derivatives, entirely **free of petroleum-based products**.

In terms of lighting and energy, an expansive skylight **maximizes natural light**, complemented by a **low-energy LED lighting system**, all powered by **100%**

renewable energy. Furthermore, the store is one of the first retail spaces to introduce nano-carbon filtration technology, which effectively **blocks urban air pollution** to create a healthier indoor environment for both customers and staff.

Please evaluate your perception based on this type of “functional” sustainable visual merchandising:

[illegible]

Statement	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neutral (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
complete and profound.							
8_2. The props highlight the brand's refined taste and sense of responsibility.	☐	☐	☐	☐	☐	☐	☐

Part 3: Overall Impact & Suggestions

1_3. Overall, to what extent do you think the use of sustainable visual merchandising by luxury brands has a positive impact on their overall brand image?

(1 = No positive impact at all, 7 = Very large positive impact)

1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○

2_3. Do you have any specific suggestions or brilliant ideas on how luxury brands can use sustainable visual merchandising to better impress customers and enhance their brand image? (Optional)

Part 4: Basic Information

1_4. What is your gender?

- ○ Male
- ○ Female
- ○ Other

- ○ Prefer not to say

2_4. Where do you reside long-term?

- ○ Mainland China
 - ○ Hong Kong, China
 - ○ Macao, China
 - ○ Taiwan, China
 - ○ Overseas
-

Closing Remarks

Thank you very much for sharing such valuable insights! Your responses are extremely helpful to our research. We sincerely appreciate your time and support.

Explanation of the Choice of Scenarios

The first Scenario is from Dior 2024. As analyzed in the case study, Dior had a careful design of the visual merchandising and involved colorful props based on their theme. In the field of visual merchandising, Dior always leads the industry trend with its creativity and craftsmanship. For creativity, all brands pay attention to being innovative because it has become a main brand spirit for luxury fashion. For craftsmanship, Dior expresses its unique attitude via many elements of the Scenario in 2024, which has been emphasized in the case study as well. Besides, with the popularization of sustainable development concepts nowadays, Dior has integrated them into its window display designs, ingeniously combining environmental awareness with the design concept of in-store decorative merchandising. Through elaborately crafted props and professional display techniques, Dior's visual merchandising is not only a visual feast but also a kind of aesthetic atmosphere that makes customers feel immersed. Therefore, Dior once again demonstrates its position as an industry pioneer, so it's suitable for the first Scenario to analyze the decorative props in the questionnaire survey.

The second Scenario is from Stella McCartney. Stella McCartney is the embodiment of her brand's sustainable principles. A lifelong vegetarian, she built her label on a foundational commitment: a strict refusal to use animal leather, feathers, or fur from day one. This deep-seated conviction finds its most complete expression in her favorite project—the Old Bond Street flagship store. The store's interior is more than just a retail space; it's a manifesto for sustainable design. It brings the brand's philosophy to life by championing materials that are handmade, organic, or sustainably sourced, all under the ethos of "reclaim, reuse, and recycle." This commitment extends beyond aesthetics. From construction to functional VM props, even daily operations, the store's environmental impact is continuously monitored and improved, with the brand transparently publishing its standards and progress in an annually updated Green Guidebook.

Related Website Information

<https://www.vmdisplaysolution.com/dior-visual-merchandising/>

https://www.voguehk.com/zh/article/%channel%/stella-mccartney_sustainable/

<https://www.vogue.co.uk/article/stella-mccartney-old-bond-street-flagship-store>

<https://www.wallpaper.com/fashion/stella-mccartney-opens-sustainable-london-flagship-2018>

<https://www.bluestudiotrading.com/post/stella-mccartney-23-old-bond-street>

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