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The Power of Contrast: Exploring the Allure of Black-and-White Advertising in Shaping Brand Luxury Perception

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Summary

This study explores the effectiveness of black-and-white imagery in luxury brand communications, specifically in influencing consumers' perception of luxury in an era of increased accessibility to luxury brands. We hypothesize that incorporating black-and-white imagery into luxury brand visuals can effectively shape consumers' perception of luxury. Additionally, we propose that perceived brand expertise mediates the relationship between black-and-white advertising and perceived brand luxury, while examining the moderated mediation of brand heritage salience.

An online experiment involving 145 adult participants was conducted using the Qualtrics platform. Data analysis using STATA and SPSS provides compelling evidence supporting the positive impact of black-and-white advertising on brand luxury perception. The findings also emphasize the significance of perceived brand expertise in shaping consumer perceptions of luxury brands.

Based on these findings, luxury goods marketers are advised to strategically incorporate black-and-white visual imagery in brand communications to enhance consumers' perception of luxury. By leveraging the inherent associations of black-and-white visuals, luxury brands can reinforce their image while maintaining exclusivity and desirability in an increasingly accessible market.

This research highlights the potential of black-and-white visual imagery in luxury brand communications. Further research is needed to explore the mechanisms through which brand expertise perception and heritage salience influence the relationship between black-and-white advertising and perceived brand luxury. Additionally, examining the impact of black-and-white imagery across different market segments can offer valuable insights for luxury brands' communication strategies.

Keywords: Visual marketing · Black-and-white advertising · Luxury brands · Brand attitude · Brand luxury perception · Brand expertise · Brand heritage

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1. Introduction

1.1. Background

Consumer perceptions of a brand play a crucial role in determining its success. These perceptions contribute to the development of the brand's personality (Batra et al., 1993). Ultimately, brand personality is an integral part of the brand's overall equity, representing the strength of a brand in the marketplace (Aaker, 1992). Thus, positive brand perceptions can indirectly enhance brand equity, making the brand more valuable and influential in the eyes of consumers. Furthermore, in a competitive market, brand perceptions help differentiate one brand from another. They can create a distinct identity, setting the brand apart from competitors and making it more memorable and recognizable for consumers (Schmitt, 1999; Sharp & Dawes, 2001). Brand identity is shaped through the utilization of external cues released by a company's marketing endeavors (Wernerfelt, 1988). These cues may encompass a variety of elements, such as brand names, product attributes, media advertisements, logos, and package designs (Batra et al., 1993). Notably, people form perceptions and make judgements about a brand within the first 90 seconds of interaction (Singh, 2006). A significant portion of these evaluations, ranging from 62% to 90%, is solely based on color (Lee et al., 2014).

When it comes to understanding and evaluating brand offerings, consumers display a preference for visual information over verbal content (DelVecchio et al., 2018). To adequately respond to this preference, marketers have increased the amount of brand-related visual imagery and assets in their communication efforts throughout media channels (Kane & Pear, 2016). In the latter, the prevalence of color images has become the norm (Lee et al., 2014). However, amidst the increasing marketing media clutter, marketers struggle to create distinct brand identities that stand out from those of competitors, capture consumers' attention and engagement, and ultimately drive purchase decisions. Therefore, the question arises: "In a marketing landscape dominated by color, can marketers utilize black-and-white imagery to stir brand perceptions to a desirable direction?"

While color is undoubtedly powerful in marketing, black-and-white visuals are not obsolete. Major luxury brands such as Dior, Prada, Givenchy, and Chanel have traditionally shown a preference for black-and-white advertising (Wang et al., 2022) (Appendix A). Such visuals are often used as an effective tool for brand

storytelling, allowing marketers to craft narratives that evoke intrigue and allure. By utilizing this monochrome pattern, brands convey a sense of rarity and refinement, captivating the attention and imagination of consumers (Greenleaf, 2009). On Adforum, a renowned advertising database, approximately 17% of the enumerated luxury print advertisements were in black-and-white between 2001-2018 (Wang et al., 2022).

1.2. Focus

With the increasing demand for luxury products in the marketplace and the rise of digitalization in brand touchpoints, luxury brand managers must carefully navigate the delicate balance between meeting this demand and preserving the perceived exclusivity, uniqueness, and quality of their brands' offerings (Tynan et al., 2010). A luxury brand encompasses various qualities, and when consumers assess its level of luxury, they sacrifice less salient qualities in favor of more prominent ones (Vigneron & Johnson, 1999; 2004). In this situation, managers need to emphasize specific qualities to maintain a desirable perception of luxury for their brands.

Most luxury brands have a common brand image: they evoke a sense of exclusivity and enjoy high perceived quality, through which they maintain sales and customer loyalty (Phau & Prendergast, 2000). The traditional luxury business model revolves around selling products that are distinguished by craftsmanship and functional excellence (D'Arpizio et al., 2023). Thus, consumers purchase luxury goods because they want high-quality products, exceptional service, and "state-of-the-art" devices (Jeong, 2023). However, the growing luxury market poses a challenge in striking a balance between preserving a distinct brand image and capturing market share. After a severe decline in 2020 as a result of the COVID-19 pandemic, the market rebounded to €1.15 trillion euros (approximately $1.61 trillion dollars) in 2021 (D'Arpizio et al., 2023). Then, the following year, it expanded by 19% - 21%. Despite expected recessionary conditions in leading economies in 2023, the luxury market should continue to expand: projections indicate that its consumer base will reach 500 million by 2030, compared to 400 million in 2020.

Moreover, a significant trend that is currently shaping the global luxury market is the process of digitalization (Jeong, 2023). Online platforms have emerged as a

complementary aspect to the traditional in-store experience, with consumers now actively seeking information and engaging with brands through their online channels (Berg et al., 2022). While the digitalization of touchpoints, such as advertising on social media platforms, has contributed to market growth (Gu et al., 2021) and brand equity (Godey et al., 2016), it has also added to the concerns about exclusivity perception (Rios, 2016). Nonetheless, in the digital era, luxury brands are presented with new opportunities to engage with their consumers while staying true to their brand essence (Deloitte, 2022). Looking ahead to 2030, the luxury goods market is expected to witness the emergence of novel activities, many of which will be powered by emerging technologies. These activities may encompass brand-related media content, including movies, music, and art, among other possibilities.

All in all, the heightened accessibility of luxury brands has diminished the sense of rarity and exclusivity associated with them (Park et al., 2020). In this thesis, as part of our conceptual model, we explore whether brand managers should highlight the brand's expertise in order to uphold perceived brand luxury, [i.e., maintain the perceived exclusivity, uniqueness, and quality of their brand's offerings (Tynan et al., 2010)]. A key component of brand expertise perception, perceived product quality, is significantly enhanced by black-and-white advertising imagery (Hoyer et al., 1986). It can be further bolstered by placing greater emphasis on the brand's heritage, which is a prominent characteristic of luxury brands (Vigneron & Johnson, 2004). As a result, in our research, we claim that using black-and-white imagery, as part of a luxury brand's visual communications, can present a viable approach to effectively shape the perception of luxury by exuding a sense of rarity and refinement (Greenleaf, 2009), as well as timelessness and endurance (Zettl, 2013).

1.3. Problem Statement, Research Objectives, and Implications

Based on the previous discussion, we have formulated the following problem statement that outlines the specific issues we intend to tackle in our research:

"We seek to ascertain whether black-and-white advertisement design positively impacts brand luxury perception through the mediating role of brand expertise perception and moderated mediation of brand heritage salience in the luxury

goods sector. We further aim to establish whether brand luxury perception positively impacts purchase intent."

From this problem statement, in Table 1, we have extracted our broad research objectives and particular sub-objectives.

Table 1. *Research Objectives and Sub-Objectives*

	Research Objectives		***Sub-objectives***
1	To assess the impact of advertisement design on brand luxury perception.	*1.1.*	To assess the impact of black-and-white advertisement design on brand luxury perception, as compared to that of color advertisement design.
2	To assess the moderating role of brand heritage salience on the relationship between advertisement design and brand expertise perception.	*2.1.*	To assess the impact of primed brand heritage salience on brand expertise perception, as compared to that of non-primed brand heritage salience.
3	To assess the mediating role of brand expertise perception on the relationship between advertisement design and brand luxury perception.	*3.1.*	To assess the impact of black-and-white advertisement design on brand expertise perception, as compared to that of color advertisement design.
		3.2.	To assess the impact of brand expertise perception on brand luxury perception.
4	To assess the impact of brand luxury perception on purchase intent.	*4.1.*	To assess the effect of black-and-white advertisement design on purchase intent, as compared to that of color advertisement design.

This research aims to offer valuable insights into how luxury brands can influence consumer perceptions of their level of luxury by accentuating certain brand qualities. This is highly pertinent for luxury brands that strive to distinguish themselves from the mainstream consumer market by effectively utilizing new brand-related media opportunities to engage with consumers, all the while maintaining their brand identities. Further, the findings and implications of this research give rise to important reflections about brand equity. Given that brand perceptions exert an indirect influence on brand equity, favorable perceptions can elevate the equity of luxury brands, rendering them more valuable and influential in the eyes of consumers.

1.4. Thesis Layout

This thesis is structured in the following way: in the Literature Review section, we first provide the theoretical background to classify our variables of interest and understand their operating mechanisms. Then, we delve into the research

conducted on these topics to make potentially relevant linkages. In the Hypotheses Development section, we use the insights gained from the previous section to formulate specific hypotheses that reflect our expected relationships between the variables. Next, in Methodology, we offer a comprehensive account of our study's implementation, providing a description of the procedures followed and outlining the steps taken to ensure the collected data was appropriately processed for subsequent analysis and interpretation. Subsequently, in the Results section, we present the testing of the hypotheses, while in the Discussion section, we delve into a comprehensive discussion of the findings and consider their research and strategic implications. In the final section, we discuss our study's limitations and offer directions for future research.

2. Literature Review

2.1. Theoretical Background

This initial section of our Literature Review provides the essential theoretical foundation required to classify our variables of interest and understand their potential interrelations. To begin with, we briefly discuss the advertising effects on consumer behavior and the workings of human visual perception. We then examine color as a visual stimulus and assess the differences in processing demand between black-and-white and color stimuli. Through the exploration of these topics, our objective is to cultivate an understanding that will guide our research examination and enable us to draw potential connections between them.

2.1.1. Advertising Effects on Consumer Behavior

Stemming from the first formal AIDA model (Strong, 1925), "hierarchy of effects" type models have examined how advertising impacts consumer beliefs, attitudes, and purchasing decisions (Lavidge & Steiner, 1961). According to these models, advertising effects are categorized as "intermediate," such as those on beliefs and attitudes, and "behavioral," such as those on brand choice (Vakratsas & Ambler, 1999). Intermediate effects imply that exposure to the advertising stimulus has some mental effect [e.g., on communication, brand, and product category beliefs and attitudes (Bloom et al., 1994)], prior to influencing behavior. Hence, the cognitive, i.e., the "thinking" dimension, and affective, i.e., the "feeling" dimension of a person's response, make up the intermediate advertising

effects (Vakratsas & Ambler, 1999). Meanwhile, purchasing and product usage behavior, or changes to them, represent the behavioral effects of advertising.

2.1.2. The Workings of Visual Perception

Then, our investigation delved into the perception of visual stimuli and their subsequent impact on individuals' cognitive and affective processes. Research suggests that visual stimuli are perceived both holistically (Ellis, 2013; Koffka, 2013) and in parts (Coren, 2003; Sekuler & Blake, 2002). However, even when stimuli are processed in their entirety, their components can exert individual effects on people's cognition and affect (Sample et al., 2019). Initially, individuals perceive the separate components of a stimulus by directing their attention to its external physical attributes. The incorporation of additional components into the stimulus provides a greater amount of visual information within the perceptual field, leading to a complete scene, formed by the combination of various components such as illuminance, shape, surface color, materiality, and location. The process of receiving and representing stimuli in the brain involves the activation of neurons along perceptual pathways, while an individual's emotional and physical states of being act as moderators in this process. Lastly, people engage in the involved process of categorizing and evaluating the perceived stimuli, the result of which ultimately serves as the cognitive and affective output.

2.1.3. Color as a Visual Stimulus

All visual stimuli that can be processed by the human perceptual system contain color information (Elliot & Maier, 2014). The attributes of color are hue, saturation, and lightness. *Hue* allows for color classification (Beck, 1972) and it refers to its dominant wavelength in the electromagnetic visible spectrum (Hagtvedt & Brasel, 2017). *Saturation* is the degree to which a perceived hue deviates from a gray of the same lightness (Beck, 1972) and corresponds to the purity of the color (Hagtvedt & Brasel, 2017), while *lightness* is the color's range from black to white (Sample et al., 2019).

Researchers have identified two activation-based dimensions that affect human responses to color: the arousal and evaluative dimension (Crowley, 1993). The arousal dimension, often associated with *embodied meaning* (Labrecque & Milne, 2012), elicits biological responses to color, such as increased brain activity and

heart rate (Crowley, 1993). On the other hand, the evaluative dimension, similar to *referential meaning,* triggers learned color associations derived from an individual's network of semantic connections (Labrecque et al., 2013). Interestingly, both dimensions can operate without conscious intention. The arousal dimension can evoke physiological responses without people being aware of it (Elliot et al., 2007; Horcajo et al., 2010). Similarly, the evaluative dimension activates learned color associations without conscious awareness (Elliot et al., 2007).

Researchers have concluded that color exerts an automatic influence on people (Elliot et al., 2007). It activates various concepts and motivations (Mehta & Zhu, 2009), communicating meaningful messages and associations, shaping perceptions, and influencing consumer preferences (Zeltner, 1975). Consequently, color plays a significant role in impacting people's cognitive, affective, and behavioral responses (Elliot et al., 2007; Meier et al., 2004; Page & Herr, 2002).

2.1.4. The Importance of Color in Marketing

Color plays a significant role in marketing because it has the ability to grab consumers' attention, shape their perceptions, and provide them with cues about product attributes (Labrecque et al., 2013; Schindler, 1986). Moreover, by employing colors, a brand can establish a strong visual identity, thereby enhancing brand recognition and differentiating itself from competitors (Labrecque et al., 2013; Lightfoot & Gerstman, 1998).

Color has been widely recognized in the literature as a significant factor influencing consumer perceptions of advertisements (Gorn et al., 1997). Within the same context, early scholars have examined the effects of different color attributes (hue, saturation, and lightness), finding that highly saturated colors enhance memory retention for advertisements (Gorn et al., 1997; 2004; Labrecque & Milne, 2012). Conversely, some researchers have argued that color, when emphasizing secondary aspects of an advertisement, can divert consumers' attention from crucial features such as the quality of the advertised product (Lee et al., 2014). However, despite this potential distraction, the effectiveness of color in conveying product quality remains, although its impact may differ across various product categories (Lohse & Rosen, 2001). Consequently, it is important to

acknowledge that the influence of color on the evaluation of advertised products is context-dependent.

As visual stimuli, colors have the ability to evoke associations in memory based on their referential meanings, highlighting the significance of using color in a brand's visual communications. For example, blue is commonly associated with competence due to its connections with intelligence, trustworthiness, efficiency, duty, and logic (Fraser & Banks, 2004; Mahnke, 1996; Wright, 1988). This activation of relevant color associations, (e.g., reliability, intelligence, and corporate image), plays a crucial role in shaping the perception of the brand's personality (e.g., competence) (Labrecque et al., 2013). The intrinsic meanings associated with colors thus become an integral part of a brand's identity, contributing to brand recognition and effectively conveying the desired brand image (Bottomley & Doyle, 2006).

While there has been extensive research on the influence of color on consumer behavior, the examination of black-and-white imagery has been largely overlooked. In an early study conducted by Meyers-Levy and Peracchio (1995), the authors investigated the effects of full color, color-highlighted, and black-and-white ads on consumer attitudes towards the advertised products. In another study conducted by Labrecque et al. (2013), the researchers focused on the influence of brand logos displayed in full color (versus grayscale) on brand personality, familiarity, and likeability. However, despite these previous studies, the impact of advertising design presented in black-and-white (versus color) on brand perceptions remains unexplored.

2.1.5. Comparing the Processing Demands of Black-and-White Versus Color

As a visual stimulus, black-and-white has distinct characteristics that distinguish it from color (Elliot & Maier, 2014). While the latter conveys information through variations in hue, saturation, and lightness, black-and-white relies solely on lightness variations (Hagtvedt & Brasel, 2017; Lee et al., 2014). The absence of hue and saturation in it creates a simplified version of the color stimulus (Greenleaf, 2009). This indicates that the impact of black-and-white on cognition, affect, and subsequently behavior is likely different from that of color[1].

[1] This has not been formally tested, thus claims made by author Eric A. Greenleaf on this issue remain speculative, necessitating scientific investigation.

As stimuli become easier to process, viewers acquire greater cognitive resources, allowing them to engage in higher-order processing or comparisons more effectively. However, the question of whether black-and-white imagery is less or more demanding to process compared to colored ones has generated arguments from both perspectives. On the one hand, black-and-white images can be less demanding due to reduced requirements for psychological resources, as the absence of color leads to the decreased activity of color-processing cones in the retina, resulting in less information being transmitted to the brain (Greenleaf, 2009). What's more, black-and-white images emphasize contour and boundary information, which facilitates attention to the form or shape of an object (Arnheim, 1974; Davidoff, 1991). This suggests that processing black-and-white uses up less cognitive resources as compared to color (Meyers-Levy & Peracchio, 1995).

On the other hand, black-and-white imagery may be more challenging to process due to its novelty (Greenleaf, 2009). People are accustomed to seeing in color, so black-and-white presents a new and potentially more difficult viewing experience that demands greater processing and effortful interpretation. While the latter can lead to higher cognitive load and lower fluency, more demanding tasks also increase stimulation (Steenkamp & Baumgartner, 1992). Consequently, as compared to colored images, black-and-white ones could evoke a deeper level of processing and higher stimulation, which, in an advertising context, could lead to heightened product preference and greater purchase intent (Greenleaf, 2009).

In any case, both arguments lend further support to the initial assertion that the impact of black-and-white stimuli on cognition, affect, and potentially behavior is distinct from that of color ones. However, this remains a supposition that requires further scientific investigation.

2.1.6. Classifying Variables of Interest and Establishing Interrelations

This research focuses primarily on the influence of exposure to a *black-and-white advertisement design,* (the stimulus), on the formation of brand perceptions, (the output). Specifically, we are interested in exploring how the "thinking" dimension of a person's response, which falls under the intermediate advertising effects category (MacInnis & Jaworski, 1989; Varkatas & Ambler, 1999) is affected. We expect that this particular ad design will activate learned associations through

referential meaning (Meyers-Levy & Zhu, 2010; Zeltner, 1975), thus influencing viewers' brand perceptions.

In this context, our variables of interest include *brand luxury perception*, *brand expertise perception*, and *brand heritage salience*. We classify these variables as brand beliefs, (employing the terms belief and perception interchangeably), following Fishbein & Ajzen's (1975) claims that:
(1) A belief is the information a person has about an object, and it connects the object to a certain attribute;
(2) An individual forms beliefs about an object through direct observation, information obtained through outside sources, and inference processes; and
(3) Beliefs based on direct observation can lead to the formation of new beliefs.

Such generated beliefs will lead to corresponding brand attitudes (i.e., evaluations) that influence purchasing behavior (Bloom et al., 1994). Our ultimate (dependent) variable, *purchase intent,* thus aims to reflect the behavioral effects of advertising.

2.2. Research on Brand Perceptions: Luxury, Expertise, and Heritage

The following section of our Literature Review delves into the extensive research conducted on our variables of interest. Here, we focus on the intricate connections between these variables and brand identity, examining the factors that shape them and the areas of consumer behavior in which they have an impact. Furthermore, we explore the role of marketing in driving these variables and the strategies that can be employed to further influence them. By examining these topics, we aim to gain a comprehensive understanding of the research landscape surrounding our variables of interest and their implications for our study.

2.2.1. Brand Luxury Perception

Luxury brands have a distinctive approach to branding that is built upon several important characteristics associated with luxury (Kapferer & Bastien, 2009). These include high quality, premium pricing, uniqueness, and prestige (Hennigs et al., 2013). To establish a strong brand identity and stand out from competitors, luxury brands need to engage in marketing activities that evoke these attributes (Phau & Prendergast, 2000).

A luxury brand's identity is shaped by various elements, namely premium pricing (Keller, 2009), superior quality (Kapferer, 1997), and limited product availability. These factors contribute to the brand's distinctiveness, creating a sense of exclusivity and prestige (Kapferer & Bastien, 2012; Wiedmann et al., 2009). However, the decision-making process of luxury consumers is influenced not only by social factors but also by their personal preferences (Wiedmann et al., 2009). While the perceived social utility derived from owning luxury products, such as displaying status, wealth, or prestige to gain recognition and admiration from others, is important, personal inclinations also play a significant role in evaluating luxury brands. These inclinations revolve around two key aspects: the ability of a brand to provide functional and pleasurable benefits to consumers, and how well a brand aligns with and reflects their personal identities and accomplishments.

In essence, luxury consumers consider both social and personal factors when making decisions in luxury consumption. They seek branded products that not only fulfill their desire for social recognition but also resonate with their individual preferences and aspirations. As a result, luxury brands need to communicate the value of luxury that aligns with consumer expectations and perceptions in order to justify their higher prices (Zhang & Bloemer, 2008).

2.2.2. Brand Expertise Perception

Consumers often find themselves in a state of uncertainty regarding the quality of a brand's offerings due to limited access to information (Kirmani & Rao, 2000). To mitigate the perceived risk associated with their purchase decisions, they rely on their perceptions of a brand's expertise (Pontes et al., 2017). This reliance becomes especially important in situations where it is challenging to assess product quality (Ghosh et al., 1995), such as during online shopping (Erdem et al., 2002), or when there are significant consequences for making the wrong choice (Jin et al., 2015). In such cases, brand managers can employ quality signals to bridge the information gap and effectively communicate brand expertise (Wernerfelt, 1988).

A brand is considered an expert when it consistently delivers high-quality products and services that meet or exceed market expectations (Heath et al., 2011). This consistency builds brand trust and confidence among consumers, as they come to rely on the brand's track record of excellence. Brand expertise can

be further communicated through effective branding strategies that highlight the brand's values, mission, and commitment to quality (Baek et al., 2010; Jin et al., 2015). Consistent messaging across various touchpoints, including advertising and packaging, reinforces the brand's image of expertise and builds consumer trust. Indexical Cues, or attributes that provide consumers with evidence-based facts of what a brand claims to be [e.g., "Made in" labels, (Morhart et al., 2015)], are perfect examples. Offering consumers objective information, these signals collectively enhance a brand's perceived competence and capability (Carsana & Jolibert, 2018).

Consumer beliefs about a brand's knowledge and expertise in the industry lead to higher brand satisfaction and increased brand loyalty (Sweeney & Swait, 2008). When consumers perceive a brand as highly credible and knowledgeable, they are more likely to develop a strong connection with it and become loyal brand advocates. Moreover, consumers demonstrate a greater purchase intent and willingness to pay a price premium when they perceive a brand as highly credible (Jin et al., 2015). Brand credibility, which encompasses trustworthiness and expertise (Erdem & Swait, 2004), is thus intrinsically linked to brand expertise (Lafferty & Goldsmith, 1999; Wang & Yang, 2010).

In summary, brand expertise, as a component of brand credibility, can be established through marketing techniques that enhance perceived competence and capability. By consistently delivering high-quality products and services and effectively communicating brand quality attributes, brands can establish themselves as experts in their respective industries. This not only reduces consumers' perceived risk but also positively influences their perceptions of quality, purchase intent, and brand loyalty.

2.2.3. Brand Heritage Perception

Consumers place importance on a brand's past (Brown et al., 2003; Orth & Gal, 2012) to such a degree that brand heritage is considered a dimension of brand identity (Urde et al., 2007). The historical performance of a brand has a significant impact on consumer perceptions of its current market performance, which, in turn, influences consumer brand evaluations (Rose et al., 2016). Marketers can leverage a brand's track record, longevity, core values, symbols, and history (Urde et al., 2007) through various communication techniques to impact its perceived heritage,

conveying a sense of stability and longevity in the minds of consumers (Pecot et al., 2019).

In marketing, brand heritage reinforces mental associations based on historical references (Burghausen & Balmer, 2015). Notably, researchers have examined the impact of brand heritage on product brands by incorporating its elements into packaging (Orth et al., 2019), advertising (Rose et al., 2017), and other forms of communication (Martino & Lovari, 2016). Perceived brand heritage can thus be enhanced by using extrinsic brand cues (Zhang et al., 2019). At the product brand level, symbols have been identified as a significant element of brand heritage, capturing consumers' attention more than other elements like core values and history (Hakala et al., 2011). By incorporating them into visual and textual elements, researchers have used symbols as cues to represent other dimensions of brand heritage (e.g., Pecot & De Barnier, 2017). For example, in stories, brand heritage becomes salient through textual elements, such as the date and location of the brand's foundation (Pfannes et al., 2021), its people, technology, and "Omni-temporality" (Butcher & Pecot, 2022).

Brand heritage salience thus refers to the extent to which the brand's historicity, locality, tradition, and essence, as transmitted through communication activities (Beverland et al., 2008), stands out in the minds of consumers (Pecot et al., 2019). Emphasizing a brand's heritage not only helps differentiate it from competitors (Urde et al., 2007) but also has a positive impact on purchase intent, particularly among nostalgic consumers (Merchant et al., 2013). Multiple studies have examined the relation between brand heritage and nostalgia (Testa et al., 2017; Ford et al., 2018; Merchant & Rose, 2013), finding that brands can induce this feeling by making their heritage more salient (Ford et al., 2018). Although brand heritage is frequently linked with nostalgia (Testa et al., 2017), the former is primarily derived from brand-related associations, while nostalgia is not (Pecot et al., 2019). The latter is highly individual-specific, depending on an individual's nostalgia-proneness (Holbrook, 1993; Schindler & Holbrook, 2003). As a result, brand managers are limited in their ability to influence brand-related nostalgia. In the meantime, consumers that are unfamiliar with a brand can still determine brand heritage without experiencing the feeling of nostalgia (Pecot et al., 2019).

Overall, the communication of brand heritage has a positive impact on how people perceive a brand (Pecot et al., 2018; Rose et al., 2016), leading to stronger emotional connections (Merchant et al., 2013), increased brand trust (Balmer & Greyser, 2006), and enhanced loyalty (Zeren & Kara, 2020). Moreover, highlighting brand heritage has been found to enhance the perception of product quality, enabling companies to charge higher prices (Pecot et al., 2018). Finally, in general, brand heritage has been found to have a positive influence on purchase intent (Rose et al., 2016).

3. Hypotheses Development

3.1. Black-and-White Advertisement Design and Brand Luxury Perception

Luxury brands value their exclusivity and strive to maintain a perceived psychological distance from the mass-market (Park et al., 2020). This psychological distance comprises several dimensions, namely, temporal distance (now versus then), physical space (here versus there), social distance (us versus them), and hypothetical distance (real versus imagined) (Trope & Liberman, 2010). These dimensions are interconnected, and an increase in any of them enhances the perceived psychological distance.

Luxuriousness is often associated with abstract benefits such as inaccessibility and elitism (Vigneron & Johnson, 2004), which further magnify the psychological distance from the mass market. The consumption of luxury goods is driven by the desire to elevate one's social status and possess products that are exclusive to a select group of individuals (Kapferer & Bastien, 2012), thereby increasing the *social distance* between luxury and average consumers. As a result, the perception of scarcity surrounding luxury goods increases the psychological distance between luxury and mainstream brands (Kapferer, 2012).

The uniqueness and artistry of luxury brands may contribute to artificial social segregation and fuel consumers' aspirations to own luxury products (Javornik et al., 2021; Kapferer & Valette-Florence, 2016; Phau & Prendergast, 2000). To inspire consumers and cultivate their attraction, luxury brands use visual elements in their advertising, enabling viewers to interpret the imagery more subjectively and derive personal meanings (Amatulli et al., 2018). Color schemes, in particular, play a crucial role in communicating the luxurious nature of a brand (Amatulli et

al., 2020). Research suggests that due to the association with the "golden age" of television and the currently limited availability of the medium, black-and-white imagery can communicate a sense of rarity and refinement (Greenleaf, 2009). Such images can also impact consumer perception by enhancing the sense of brand creativity and artistry (Baetens, 2011).

Achromatic colors, specifically black-and-white, have a significant impact on shaping *social distance* (Wang et al., 2022). When social distance increases, individuals' perception of stimuli often undergoes a transformation (Liberman et al., 2007; Trope & Liberman, 2010), which implies that the effect of these images on consumer perception is likely to vary from that of color (Greenleaf, 2009). In addition, the use of color in visual imagery is associated with relatively modern technology, so black-and-white visuals are perceived as more *temporally distant*, evoking a connection to the past (Lee et al., 2014; 2017). Moreover, as the viewer's surroundings are colorful, experiencing black-and-white imagery deviates from the usual perception of reality, creating a sense of detachment and likely increasing *hypothetical distance*. As a result, researchers argue that black-and-white is perceived as more psychologically distant than color (Stillman et al., 2020).

Based on the preceding literature, we propose the following research hypothesis:

H1. As compared to individuals exposed to the *color advertisement design*, those exposed to the *black-and-white advertisement design* have a higher *brand luxury perception*.

3.2. Moderating Role of Brand Heritage Salience

Brand heritage is a typical situation of information asymmetry, in which brand managers and consumers have different information regarding a brand's heritage, since the majority of corporate heritage is unknown to the general public (Keller & Lehman, 2006). However, managers can bridge this information gap by utilizing visual and textual elements in their advertising efforts to manipulate the levels of heritage evident to the average consumer (Kirmani & Rao, 2000).

Brand heritage salience refers to how prominent the brand's historicity, heritage, locality, tradition, and essence (Beverland et al., 2008) are in the minds of consumers (Pecot et al., 2019). A brand's history of successful past performance

impacts consumer perceptions regarding its current market performance, which in turn influences brand evaluations (Rose et al., 2016). Research suggests that the successful communication of brand heritage impacts consumer perceptions of the brand's stability and longevity (Pecot et al., 2019), factors that influence brand credibility (Balmer, 2011), trustworthiness (Balmer & Greysen, 2006), and expertise (Hudson & Balmer, 2013). Interestingly, the latter are all drivers of brand expertise (Jin et al., 2015). Therefore, we hypothesize that the effortful communication of brand heritage through textual elements, which leads to brand heritage salience, impacts the relationship between the visual stimulus and the perception of brand expertise.

Furthermore, brand heritage influences consumer perceptions of the brand's ability to deliver high quality products (Zeren & Kara, 2020; Moulard et al., 2016; Desai et al., 2008). This leads to a higher perception of product quality, thereby allowing firms to charge higher prices (Pecot et al., 2018). This is especially important for luxury brands (Park et al., 2020), which strive to establish their identity through their superior quality (Kapferer, 1997) and premium prices (Keller, 2009). In addition, brand heritage has been determined as a key characteristic of luxury brands (Vigneron & Johnson, 2004). However, on the other hand, luxury brands are combinations of multiple attributes, and consumers will trade off less salient attributes for more salient ones when making evaluations of a brand's luxury level (Vigneron & Johnson, 1999; 2004). As a result, leveraging the priming effect of heritage enables a luxury brand to effectively communicate its capability to provide exceptional quality, thereby enhancing its perceived level of luxury (Pecot et al., 2018).

Based on the preceding discussion, we propose the following research hypothesis:

H2. *Brand heritage salience* moderates the relationship between *advertisement design* and *brand expertise perception*.

(a) As compared to individuals in the non-primed condition, those in the primed condition exhibit a higher *brand expertise perception*.

3.3. Mediating Role of Brand Expertise Perception

3.3.1. Black-and-White Advertisement Design and Brand Expertise Perception

According to signaling theory (Wernerfelt, 1988), consumer perceptions about the firm's expertise are impacted through extrinsic cues or signals [e.g., brand names, logos, product shapes, and colors (Warlop et al., 2005)] that consumers experience by coming in contact with the brand's advertising activities. We are interested in investigating whether black-and-white imagery, as incorporated in a firm's advertising efforts, acts as an extrinsic cue that signals brand expertise to consumers.

Firstly, the extent to which the properties of visual images communicate descriptive concepts to viewers depends on ample processing (Peracchio & Meyers-Levy, 2005). Greenleaf (2009) proposed that black-and-white (versus color) images are more challenging to process, thereby eliciting thorough processing and interpretation. Consecutively, black-and-white (versus color) ad design may propel consumers to derive deeper meanings that influence their interpretation of a brand's identity (Bottomley & Doyle, 2006; Schmitt & Simonson, 1997).

Secondly, people use the shape of objects to identify and understand their meaning and functionality (Arnheim, 1974; Biederman, 1987; Biederman & Ju, 1988; Lowe, 1984; Mapelli & Behrmann, 1997). Black-and-white imagery highlights contour and boundary information, which facilitates attention to the form and shape of an object, making smaller details less distinctive (Arnheim, 1969, 1974; Davidoff, 1991; Greenleaf, 2009). Moreover, for consumers presented with black-and-white (versus color) product imagery, primary and essential product features carry greater significance than secondary and superficial features (Lee et al., 2014). As a result, perceived product quality, which is a key driver of brand expertise perception, is significantly enhanced by black-and-white advertising imagery (Hoyer et al., 1986).

Thirdly, black-and-white has been found to convey timelessness and endurance (Zettl, 2013). Timelessness, which refers to the brand's ability to stay relevant over time (Huaman-Ramirez et al., 2021), is closely related to the concept of brand expertise, since they are both dependent on the brand's consistent supply of high-quality products and services. By definition, brand expertise is the brand's

capability to continuously deliver on its promises (Erdem & Swait, 2004). This enables it to build a strong image, which in turn enhances the brand's timelessness (Kim et al., 2019). In the meantime, endurance refers to a brand's capability to maintain its market share (Huaman-Ramirez et al., 2021). Expert brands are recognized for tailoring their products and services to satisfy the consumers' functional and emotional needs, thereby maintaining their market relevance and position (Patwardhan & Balasubramanian, 2011).

As a result, brands that can consistently maintain a timeless quality and endure over time are perceived to have high brand expertise. Brands that use black-and-white imagery in their advertising efforts may thus communicate brand expertise by signaling timelessness and endurance.

3.3.2. Brand Expertise Perception and Brand Luxury Perception

Among other factors, a luxury brand's superior quality establishes its identity (Kapferer, 1997). Research has found that quality perception is an idiosyncratic yet essential element that contributes to the formulation of luxury brand attitudes (Kapferer & Bastien, 2012; Wiedmann et al., 2009). However, in situations where consumers interact with unfamiliar brands or lack the ability to instantly judge the quality of branded products (e.g., in online settings), they will often formulate perceptions of the product's quality (Ghosh et al., 1995) by relying on extrinsic cues conveyed by the brand (Jin et al., 2015). Brands that are well-versed (i.e., experts) in their product category, on the other hand, are also associated with products of superior quality. As a result, in the case of luxury brands with which consumers are unfamiliar, the quality perception dimension, as a key component of brand expertise, will partly or entirely drive a consumer's perception of brand luxury.

Based on the preceding literature, we propose the following research hypothesis:

H3. *Brand expertise perception* mediates the relationship between *advertisement design* and *brand luxury perception*.

(a) As compared to individuals exposed to the *color advertisement design*, those exposed to the *black-and-white advertisement design* have a higher *brand expertise perception.*

(b) *Brand expertise perception* has a positive impact on *brand luxury perception*.

3.4. Brand Luxury Perception and Purchase Intent

A significant amount of research has been conducted on the topic of luxury goods consumption, particularly with respect to the factors that affect consumer intentions to purchase such products. Luxury goods satisfy both functional and psychological needs (Vickers & Renand, 2003). However, following the symbolist luxury perspective, researchers claim that in luxury, hedonic and social motivations are more prevalent than in other retail and consumer service settings (Husic & Cicic, 2009).

Extant research suggests that consumers display higher purchase intent towards luxury as compared to non-luxury (Ho et al., 2022; Audrin et al., 2017). Even when their functional benefits are identical, individuals who perceive the brand as luxurious exhibit a more positive attitude towards the brand and higher purchase intent (Audrin et al., 2017). This attitudinal discrepancy can be attributed to the symbolic meanings of luxury (Vigneron & Johnson, 2004; Sung et al., 2015). Since luxury goods are associated with indulgence and social status, they are more desirable and aspirational (Vigneron & Johnson, 2004). This "desirability" factor seems to apply to the brands themselves as well, as the mere perception of a brand as luxurious is anticipated to enhance consumers' intention to purchase (Audrin et al., 2017).

According to signaling theory, consumers form brand perceptions and estimate the functional and emotional benefits of products offered based on branded cues (Wernerfelt, 1988). Given our proposition that the presence of black-and-white imagery serves as an external signal indicating brand luxuriousness, we expect that it will also enhance purchase intention.

Based on the preceding discussion, we propose the following research hypothesis:

H4. *Brand luxury perception* positively influences *purchase intent*, while controlling for exposure to the black-and-white advertisement design.

3.5. Conceptual Model

In Figure 1, we present a visual representation of the conceptual model that captures the essence of our hypotheses development and outlines the key variables and their interdependencies.

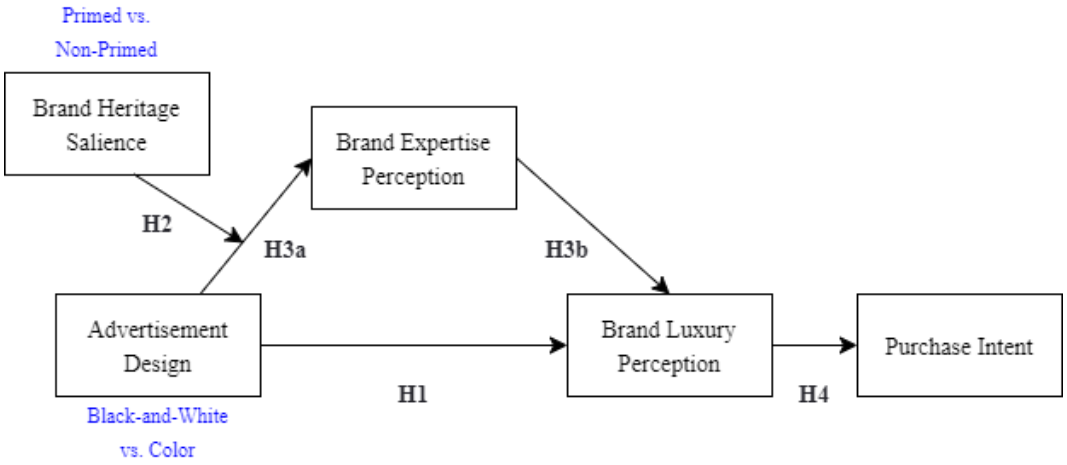


Figure 1. *Conceptual Model*

4. Methodology

In this section, we provide an overview of our study design, sampling and data collection, stimulus selection and experimental procedure, and the specific measurement scales employed to assess the variables of interest.

4.1. Study Design

To examine the effects of black-and-white advertisement design on the brand luxury perception through the moderated mediation of brand heritage salience, we conducted a 2 (advertisement design: black-and-white vs. color) × 2 (brand heritage salience: primed vs. non-primed) between-subjects experimental design. To analyze the proposed relationships, the quantitative data was collected in the form of a standardized survey to generate findings that are representative of the population (Saunders et al., 2003). In an attempt to investigate moderated mediation, we hypothesize that the mediating effect of brand expertise perception on the relationship between advertisement design and brand luxury perception is moderated by brand heritage salience.

The *advertisement design* and *brand heritage salience* variables were manipulated, and participants were randomly assigned into one of the four experimental conditions, resulting from the combination of two levels of

advertisement design (black-and-white vs. color) and two levels of brand heritage salience (primed vs. non-primed).

In the black-and-white condition, participants viewed a black-and-white advertisement featuring a men's wristwatch, whereas in the color condition, they were exposed to the same advertisement but in full color. Similar to all personal items, watches serve as reflections of the owner's taste and social status; and in the realm of luxury consumption, they are frequently employed as a means of self-expression (Wang & Yamashita, 2018). In feature films and advertisements, men who are prominently depicted wearing high-end wristwatches embody symbols of elegance, success, and sophistication, thus establishing these items as iconic accessories and universally recognized symbols. As a result, our decision to use a men's wristwatch as the visual for the advertisement aligns with our study objectives and stems from our intention to appeal to a wider audience, while minimizing differences in terms of gender-related product preferences.

In the condition where brand heritage salience is primed, the participants were shown a short paragraph that highlighted the overall significance of heritage for brands, which included a brief reference to color patterns and other extrinsic cues utilized by brands to convey their historical background. In the condition where the brand heritage salience is non-primed, participants were not provided with any accompanying text but immediately exposed to the advertisement.

4.2. Validity

To ensure the viability of our findings and establish inferences about the expected causal relationships, we designed the study to possess high internal, external, and ecological validity (Malhotra & Dash, 2010).

Firstly, to enhance the *internal validity* of the experiment, we randomly assigned participants to each condition, reducing potential biases and enabling us to control for possible extraneous confounding variables. By ensuring that individuals in each condition differed solely in terms of the treatment received, we were able to attribute the observed changes in the dependent variable to the respective levels of independent variables under consideration. The utilization of valid and well-established scales, with a minimum Cronbach's alpha value of 0.8, further bolstered the reliability and accuracy of the measurements pertaining to the

studied constructs (Malhotra & Dash, 2010). This confirmed that the variables effectively represented the phenomena under investigation.

Secondly, to secure the *external validity* of the findings and make them applicable to a wider population in various settings beyond the specific study context, we ensured that the sample was representative by distributing the survey to individuals irrespective of demographic backgrounds (Saunders et al., 2003). Furthermore, we allocated the participants randomly to different conditions and obtained a sample size with sufficient statistical power, enough to detect meaningful relationships between the constructs.

Thirdly, to ensure *ecological validity,* we designed the experimental setting to represent the natural environment in which the findings are to be applied. In our study, we specifically designed an experiment where participants were presented with an advertisement displayed on a screen of their choosing. To replicate real-world conditions, respondents completed the survey in their own settings, which resulted in variations based on device-specific characteristics and potential external distractions. This approach aimed to capture a more realistic setting for the participants.

4.3. Sampling and Data Collection

The data collection was conducted in the form of a standardized questionnaire developed in Qualtrics and distributed online as a link, which respondents could open on a device of their choice. Conducting a survey online allows colors to appear more vibrant than they would in print, which in turn maximizes the hue effect (Gorn et al., 2004). Such an approach makes the setting more natural for the participants, since ad exposure most frequently happens virtually (Ha, 2008) and the ad's effectiveness depends on various factors such as screen brightness, screen size, viewing angle, etc. (Bellman et al., 2009).

Participants were recruited through convenience sampling, which involved sharing the survey link on social media platforms, as well as employing a snowball sampling technique (Goodman, 1961), whereby participants were encouraged to share the survey link with their own networks. To be eligible for the survey completion, participants had to fulfill a minimum age requirement of 18.

We utilized the G*Power software to determine the minimum sample size required, thereby ensuring a sufficient statistical power of at least .80 to draw generalizable conclusions from the collected data (Brysbaert, 2019). Based on our manually inputted parameters, i.e., analysis of variance (ANOVA), an effect size of .25, a significance level of $\alpha = 0.05$, and statistical power of .80, the G*Power software estimated 128 participants (32 for each condition) to be the minimum sample size required to detect significant effects in the analyzed relationships. Next, the STATA and SPSS statistical softwares were employed for the analysis of the collected data.

4.4. Experimental Stimuli

To eliminate any preexisting brand perceptions among participants (Chattopadhyay & Basu, 1990), we utilized a fictional brand by intentionally excluding all branded elements from the ad visual (Figure 2). Consequently, the development of brand perceptions in our experiment relied solely on the scenarios to which the participants were exposed, allowing us to establish causal relationships.

Figure 2. *Ad Design Stimuli (Ad in Full Color on the Left; Ad in Black-and-White on the Right)*

Participants in the control group were exposed to an advertisement that incorporated the colors of blue and black. On the one hand, blue is commonly associated with competence due to its connections with intelligence, trustworthiness, efficiency, duty, and logic (Fraser & Banks, 2004; Mahnke, 1996; Wright, 1988). Consequently, this color choice also elicits perceptions of brand expertise (Afzal et al., 2010). On the other hand, black expresses sophistication and glamor (Fraser and Banks, 2004; Mahnke, 1996; Wright, 1988). It possesses a strong and commanding presence, symbolizing power, stateliness, and dignity

(Odbert et al., 1942; Wexner, 1954). Within the realm of fashion, black is commonly linked to status, elegance, opulence, and dignity (Labrecque et al., 2013). This is evident in various examples, such as black limousines, black tie events, the iconic “little black dresses”, as well as the use of black in tuxedos and suits.

Using the Adobe Photoshop software, we further adjusted the image’s colors to have a higher saturation and lower lightness, as these components have been shown to play an important role in predicting perceptions (D’Andrade & Egan, 1974; Gorn et al., 2004; Valdez & Mehrabian, 1994). Numerous studies have established a correlation between both saturation and lightness with arousal, suggesting that saturation positively influences arousal (Valdez & Mehrabian, 1994), while lightness exhibits a negative association with arousal (Gorn et al., 1997; Valdez & Mehrabian, 1994). By enhancing the image’s saturation and reducing its lightness, we expect that the color ad design will be more “emotionally involving” and challenging for participants to process. The latter is because these modifications impose higher demands on their cognitive resources (Meyers-Levy & Peracchio, 1995). This will lead to heightened stimulation that is likely to evoke a deeper level of processing (Steenkamp & Baumgartner, 1992). Consequently, we assume that this effect may result in the formation of perceptions associated with luxurious brands.

Participants in the treatment group were presented with the identical advertisement, but in black-and-white format. To create an achromatic rendition of the color advertisement, we modified the image by reducing the saturation to zero (Hagtvedt & Brasel, 2017), while maintaining all other properties constant.

To evoke participants’ perceptions of brand heritage, we employed the text priming technique (Pecot & De Barnier, 2017). Participants in the treatment group read a passage underlining the significance of heritage for brands, emphasizing how brands can shape consumers’ perceptions of heritage by utilizing extrinsic cues, including distinct color patterns. The passage read as follows:

> “Successful brands cherish their heritage. It defines their identity, culture, and values. Brands can use it to tell their story and connect with customers on a deep emotional level. To that purpose, heritage is often communicated through the brand name, product attributes, advertising, color pattern,

> logo, and package design. Thus, brand heritage provides a unique selling proposition that cannot be replicated by competitors. In addition, a brand's heritage can help companies avoid repeating mistakes of the past, contributing to their experience and expertise in the field. As a result, it is not just a record of the past; it is a powerful tool for shaping the future."

Conversely, the control group was not exposed to the passage. We deliberately refrained from providing additional information about the advertised brand's personality or history to prevent dilution of the effects arising from brand heritage cues and their anticipated amplification of brand expertise perception and, consequently, perceived luxury of the brand.

4.5. Procedure

Participants accessed the experiment by clicking on a provided link (see Appendix B for the full version of the questionnaire). To protect the anonymity and confidentiality of the survey respondents, we implemented measures in Qualtrics to prevent the linkage of sensitive data like names, email addresses, and IP addresses to specific individuals. Before beginning the survey, participants were presented with the study's purpose, which was disguised to prevent participants from becoming aware of the study's hypotheses and avoid biased responses (Elliot & Maier, 2014).

To adhere to GDPR regulations, we clearly communicated the study's purpose of data collection, emphasized the voluntary nature of participation, assured participants of the confidentiality of their responses, provided our contact information, and offered an option to withdraw from the study at any point (GDPR, 2022). Participants confirmed their agreement with the study's terms and conditions and verified their legal age by completing a consent form. No options were pre-selected, ensuring that we obtained active consent from all respondents. Additionally, participants were informed that the survey would take about four minutes to complete.

Individuals who agreed to participate were randomly assigned to one of the four experimental conditions. Those in the *primed brand heritage salience* condition were primed by reading a brief passage about the significant role of brand heritage in a brand's success and how various external cues, including the color palette, can communicate its heritage. They were then asked to evaluate the "interestingness"

and “readability” of the text, shifting the focus away from the priming technique employed and preventing speculation about the study's hypotheses. In the *non-primed brand heritage salience condition*, respondents were not presented with any textual information.

Next, all participants were informed that they would be viewing an advertisement and encouraged to take as much time as needed to familiarize themselves with the ad, since they would be asked questions about it in subsequent sections. To capture sincere and unbiased responses, participants were not allowed to revisit previous sections, ensuring that their answers were not influenced by later questions. Then, all participants were presented with an advertisement showcasing a men's wristwatch from a fictitious brand. The control group viewed the ad in full color, while the treatment group viewed the black-and-white version of the same ad.

In the following sections, participants were asked to rate their perceptions of the brand by indicating their level of agreement or disagreement with statements measuring brand luxuriousness, expertise, and heritage on a 5-point Likert scale (1 = Strongly disagree, 5 = Strongly agree). An attention check question was included, instructing participants to select the "Strongly disagree" response option. Those who failed to do so were excluded from the dataset. Finally, participants were asked to indicate their purchase intent on a 6-point scale (0 = Extremely unlikely, 5 = Extremely likely), based solely on their beliefs about the advertised brand.

In a subsequent section, participants were asked about their personal beliefs regarding whether a brand’s heritage impacts their perception of the brand’s expertise. Since individuals (1) form beliefs about an object through direct observation and inference processes and (2) beliefs based on direct observation can lead to the formation of new beliefs (Fishbein & Ajzen, 1975), these questions would let us examine the potential differences in the effects of priming and ad design on self-reported expertise beliefs and self-generated (measured) beliefs.

The remaining multiple-choice questions aimed to gather information about the participants’ demographic characteristics, such as gender, age, income, and ethnicity. To address a common methodological concern in color-based experiments, specifically, the failure to exclude color-deficient respondents (Elliot

& Maier, 2014), we concluded the survey by asking participants whether they considered themselves color-blind. The question was placed at the end to prevent any potential speculation about the hypotheses. In case of an affirmative response, participants would be removed from the dataset, as the ability to differentiate colors was considered essential for the reliability of our results.

4.6. Measurement Scales

This study investigates whether the *black-and-white advertisement design* (IV.1) has a meaningful impact on *brand luxury perception* (DV.1), as mediated by *brand expertise perception* (M). We further examine the moderating effect of *primed brand heritage salience* (W) on the relationship between *black-and-white advertisement design* and *brand expertise perception*. We ultimately study whether *brand luxury perception* (IV.2) positively affects one's *purchase intent* (DV.2), when controlling for the black-and-white advertisement design. The measurement scales used to examine the established relationships were derived from the extant marketing literature. They exhibit high internal reliability, indicating the consistency and accuracy of the items used in the study.

Advertisement Design

Respondents were randomly assigned to one of the two primary conditions, with part of the sample exposed to the black-and-white ad design, and the remaining part presented with the identical ad in full color. To account for condition assignment, the dummy variable (0 = color, 1 = black-and-white) was created during the data coding process to indicate to which ad design the participant had been exposed.

Brand Luxury Perception

Incorporating Vigneron and Johnson's (2004) Brand Luxury Index, we employed a scale to assess variations in the perceived luxury of brands, taking into consideration individual motivations for luxury consumption, such as hedonism and extended-self motives, along with factors like brand conspicuousness, uniqueness, and quality. The scale aims to measure the overall perception of luxury, comprising a total of 20 items that exhibit high internal consistency ($\alpha > 0.86$). Each item was measured on the 5-point Likert scale with standardized answer options ranging from 'Strongly disagree' to 'Strongly agree.'A comprehensive overview of each item is included in Table 2.

Perceived Brand Expertise

Despite the importance of brand expertise for marketing success, there is a lack of research on developing a reliable, valid, and generalizable scale to measure expertise in a brand setting. Heath et al. (2011) used a self-reported measure that asked participants about their perceptions of brand expertise, focusing on indicators such as ability, competence, and reliability. These indicators resemble Aaker's (1997) brand personality dimension of competence, as part of which, one of the facets is reliability. Heath et al. (2011) incorporated statements that reflected positive responses and used Likert-type scales to capture the extent of agreement or disagreement with each question. However, the specific questions used were not made available. Similarly, Delgado-Ballester (2002) developed a brand trust scale that includes the dimensions of brand reliability and brand intentions, which align with the dimensions of brand capability: trustworthiness and expertise. There is a high level of internal consistency between the items, with $\alpha = 0.83$.

Hence, we defined brand expertise, our model's mediator, by the two underlying concepts of capability and competence (Aaker, 1997; Heath et al., 2011). To measure brand expertise, we used the scale developed by Delgado-Ballester (2002) by adopting the 5 items measuring brand capability and Aaker's (1997) 5 items measuring competence.

Brand Heritage Salience

The differences in brand heritage perception were examined in close connection with the priming condition to which the participants were randomly assigned (0 = no text priming, 1 = text priming). To measure the perceived brand heritage, we adopted a scale developed by Pecot et al. (2019), which incorporated the stability, longevity, and adaptability dimensions. The scale consisted of 10 items, measured on a 5-point Likert scale (1 = Strongly disagree, 5 = Strongly agree). It demonstrated high validity and robustness of measurement since the factors employed in it were strongly representative of the measured construct, i.e., perceived brand heritage (Jöreskog's $\rho > 0.876$).

Purchase Intent

The ultimate dependent variable of the study was measured by one 6-point Likert-scale question about respondents' likelihood of purchasing from the

advertised brand (1 = Not at all likely, 5 = Extremely likely). The option of choosing '0' was included to accommodate participants' unwillingness to move the slide bar in case of complete absence of desire to purchase.

Table 2. *Summary of Employed Measurement Scales*

Variable	Variable dimensions	Scale	Measurement	References
Brand luxury perception	Conspicuousness	1-5	This is a conspicuous brand This is an elitist brand This is an extremely expensive brand This brand is for wealthy people	Vigneron & Johnson, 2004
	Uniqueness		This is a very exclusive brand This is a precious brand This is a rare brand This is a unique brand	
	Quality		This is a crafted brand This is a luxurious brand This is a best quality brand This is a sophisticated brand This is a superior brand	
	Hedonism		This is an exquisite brand This is a glamorous brand This is a stunning brand	
	Extended self		This is a leading brand This is a very powerful brand This is a rewarding brand This is a successful brand	
Perceived brand expertise	Capability	1-5	This brand will meet my expectations I feel confidence in this brand This brand will not disappoint me This brand guarantees satisfaction This is a capable brand	Aaker, 1997; Delgado-Ballester, 2002; Heath et al., 2011
	Competence		This is a reliable brand This is a responsible brand This is a dependable brand This is an efficient brand This is a competent brand	
Brand heritage salience	Stability	1-5	This brand will never go out of fashion This brand is very continuous This is a timeless brand	Pecot et al., 2019
	Longevity		This is a brand that won't disappear tomorrow This brand exudes a sense of tradition This brand reinforces and builds on long-held traditions This is a brand with roots This brand has a strong link to the past	
	Adaptability		This brand knows how to reinvent itself This is a brand that renews itself	

5. Data Analysis

The following section provides an overview of data preparation, including data cleaning and outlier handling. All the changes during the data preparation process were carefully documented to ensure the transparency and replicability of the subsequent analysis. The section also includes discussions on reliability and balance checks, as well as the selection of methodology.

5.1. Data Preparation

We obtained a total of 179 complete responses recorded in Qualtrics during the data collection process. We identified specific criteria for response qualification, namely, the response was to be included in the final dataset if an individual:

(1) Was above 18 years of age.

(2) Passed the attention check.

(3) Was not color blind, since the ability to experience the full color spectrum was deemed essential for our study.

(4) Took a reasonable amount of time to complete the survey. If someone finished the survey in less than a minute, it is possible they were not paying attention or did not put much effort into giving meaningful responses. If someone took a very long time to finish the survey, i.e., longer than 30 minutes, it could mean they were distracted, multitasking or not fully engaged.

33 respondents failed to meet the response qualification criteria and were thus removed from the dataset, resulting in a dataset of higher quality and accuracy (Malhotra & Dash, 2010).

While our dataset did not contain any missing information, we identified four outliers, namely IDs 101, 108, 124, and 132, which fell outside the general range of the box plot including all the data points (see Figure 3).

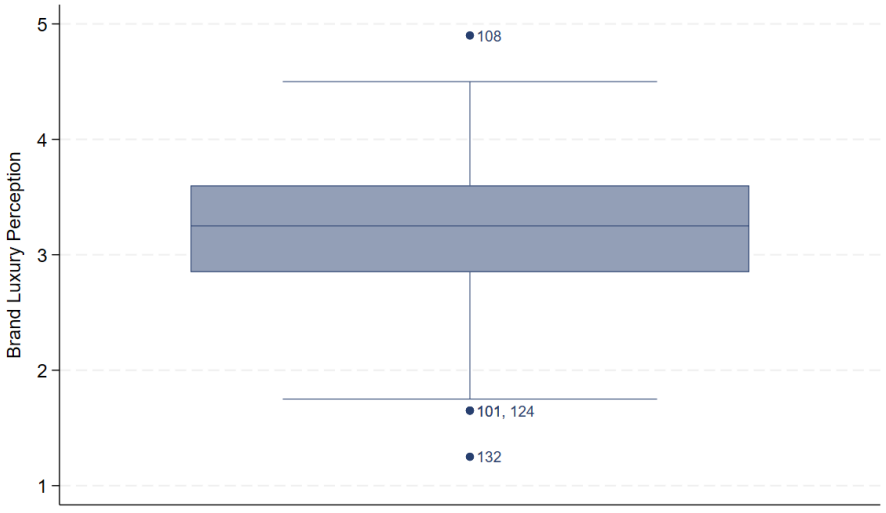


Figure 3. *Box Plot Showcasing Outliers*

We conducted an inspection of these individuals' response patterns to verify the consistency of entries (Malhotra & Dash, 2010). Based on their consistent and

coherent response patterns, we retained IDs 101, 108, and 124, and removed 132 for the opposite reason. The sample was therefore finalized with a total of N=145 valid responses, with $N_1 = 34,\ N_2 = 39,\ N_3 = 35,\ and\ N_4 = 37$ respondents in the respective conditions, where Condition 1 = Black-and-white and text priming, Condition 2 = Color and text priming, Condition 3 = Black-and-white and no text priming, Condition 4 = Color and no text priming. Notably, our sample fulfills the previously established G*Power sample-size requirement of a minimum of 128 respondents (with at least 32 respondents per condition). We also created three dummy variables for *Ad_design* (0=color, 1=black-and-white), *Priming* (0=no text priming, 1=text priming), and *Gender* (0=male, 1=female) to represent these variables as binary values in the statistical analysis.

5.2. Reliability

Following the data preparation procedure, we computed Cronbach's alpha to perform an internal consistency check. This step let us assess the reliability of the scales used in the survey and estimate the extent to which the items within those scales measured the respective underlying concepts (Saunders et al., 2003). As observed in Table 3, Cronbach's alphas for brand luxury perception, brand expertise perception, and perceived brand heritage indicated high internal consistency of the scales, surpassing the satisfactory baseline α-value of 0.6 (Malhotra & Dash, 2010).

Table 3. *Reliability Statistics for Computed Variables*

Variable	***Cronbach's Alpha***	***No. of Items in the Scale***
Brand Luxury Perception	.9000	10
Brand Expertise Perception	.9048	20
Perceived Brand Heritage	.8796	10

High alpha scores meant that the items measuring the same construct could be aggregated into an averaged variable that represented these items collectively (Malhotra & Dash, 2010). The responses were measured on the same 5-point Likert scale with identical labels for response options for each question (Strongly disagree-Strongly agree). Item direction was the same, with no reverse-coded items. Fulfilling the above-stated requirements let us compute the mean of the

series of items measuring luxury perception and label the new aggregated variable *Mean_luxury*. We repeated the procedure for brand expertise perception and perceived brand heritage, averaging the corresponding items to create *Mean_expertise* and *Mean_heritage*, respectively.

5.3. Data Balance Checks

Before running any statistical tests, we ran Bartlett's test for homogeneity of variances to check if variances were equal across all four conditions (Tables C9-12). As observed in Table 4, the obtained p-values were highly insignificant at 5%, indicating that variances across the four conditions are constant. This meets the assumption of equal variances or homoscedasticity, which assumes that samples, even if from different populations, have the same variance (Malhotra & Dash, 2010).

Table 4. *Bartlett's Equal Variances Test*

Variable	***p-value***
Gender	.581
Age	.367
Income	.992
Ethnicity	.164

Then, we tested whether the data was balanced and if there were any significant differences between the baseline characteristics. We thus conducted a series of independent t-tests to examine whether the population means differed among the four conditions. To confirm the consistency of the findings, we replicated the analysis by using a one-way ANOVA, Pearson's Chi-squared test, and Fisher's test.

First, with N=70 participants in the black-and-white condition and N=75 in the color condition, we had an approximately equal distribution of respondents. We conducted a two-tailed t-test with equal variances for gender by ad design (Table C1). Since $p = .1385$ ($> .05 = \alpha$), we retained the null hypothesis and concluded that there were no statistically significant differences in the gender distribution between the ad design conditions. We then repeated the same test for the other demographic variables, namely age ($p = .3432$), income ($p = .5764$), and ethnicity ($p = .4719$) (Tables C2-4). Due to the highly insignificant p-values, at $\alpha = .05$, we

retained the null hypothesis and concluded that there are no differences in age, income, or ethnicity between the participants assigned to the two conditions that could impair the generalizability of the results.

We applied the same procedure to check for any potential differences between the priming conditions, where 0=no text priming and 1=text priming, with N=73 respondents assigned to the non-primed condition and 72 assigned to the primed condition (Tables C5-8). The two-tailed t-tests with equal variances revealed no difference in the mean age (p-value = .6474), income (p-value = .9687), and ethnicity (p-value =.3687) between the two priming conditions. However, at α = .05, gender appeared imbalanced with a significant p-value of .0140, with female respondents slightly dominating the text priming condition. This can also be observed in Figure 4.

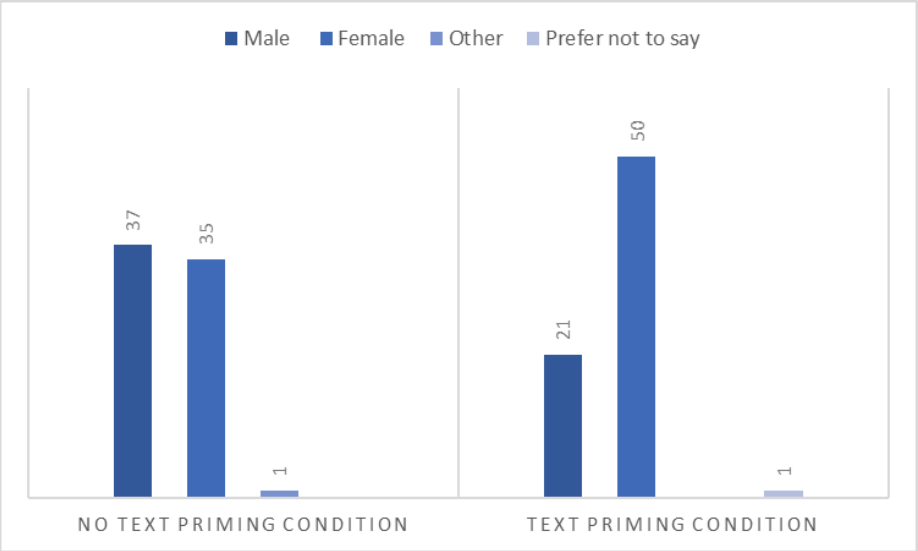


Figure 4. *Gender Distribution Across Priming Conditions*

Afterwards, to provide additional information that supported the balance in the dataset, we used one-way ANOVA (Tables C9-12), testing for significant differences in the mean gender, age, income, and ethnicity of respondents between the four conditions, the results of which are summarized in Table 5.

Table 5. *Results from the One-Way ANOVA Tests*

Variable	***df***	***MS***	***F***	***p-value***
Gender	3	.8213	2.91	.0366*
Age	3	.5711	.48	.6940

Income	3	.4716	.11	.9570
Ethnicity	3	.8064	.96	.4146

Due to the highly insignificant p-values, at 5% significance, we retained the null hypothesis and concluded that there were no differences in age, income, or ethnicity between the participants assigned to the four conditions. However, gender was significant with p = .0366 (< .05 = α). Therefore, in this case, we rejected the null hypothesis and concluded that there are statistically significant differences between the gender means. Moreover, the Tukey test indicated significantly different gender means in Conditions 1 and 4, with a p-value of .024 (< .05 = α) (Table C13). We could further observe this by looking at the gender distribution across all four conditions in Figure 5, in which male respondents clearly dominated Condition 4.

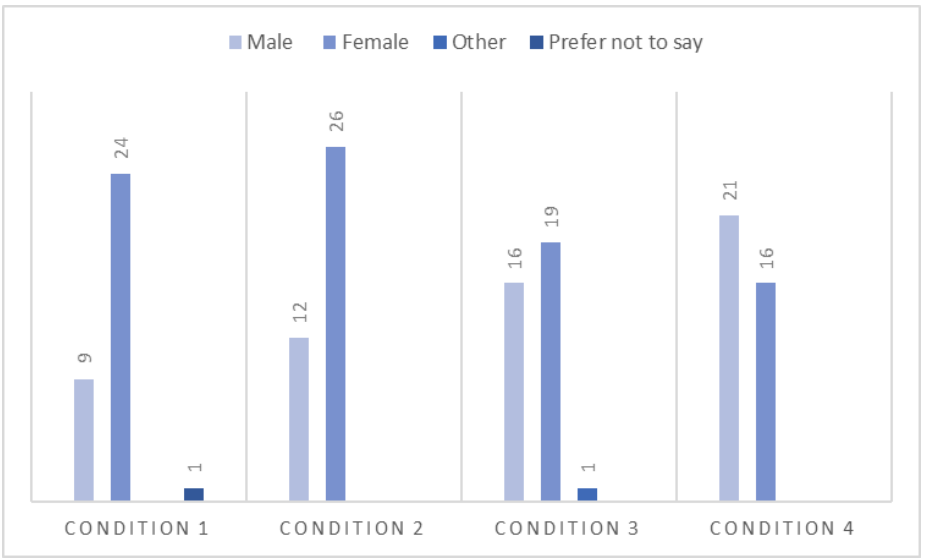


Figure 5. *Gender Distribution Across All Conditions*

We acknowledge that t-test is mostly used for continuous data, however, to account for the presence of discrete variables (Saunders et al., 2003), we conducted a Chi-squared test based on the null hypothesis of similar distribution (or frequency of distribution) for the categorical variables across the four conditions (Tables C14-17). The variables' p-values are summarized in Table 6.

Table 6. *Pearson's Chi-Squared Test*

Variable	***p-value***
Gender	.148

Age	.550
Income	.842
Ethnicity	.470

Due to the highly insignificant p-values, at 5% significance, we retained the null hypothesis and claimed that there was a similar frequency of distribution for the demographic variables across the four conditions. As compared to the results of the t-tests and ANOVA, those of the Pearson's Chi-squared test suggested that participants were distributed similarly across the conditions in terms of their demographic backgrounds.

Finally, given the relatively small frequencies of data points in our dataset, we conducted Fisher's exact test, which examines whether a statistically significant association exists between the categorical variables in small sample sizes (Tables C18-21). The results were aligned with those of Pearson's Chi-squared test, indicating no significant differences among respondents across the four conditions regarding their mean gender [p = .070 (>.05 = α)], mean age [p = .651 (>.05 = α)], mean income [p = .840 (>.05 = α)], and mean ethnicity [p = .454 (>.05 = α)].

Overall, considering the random assignment of participants to the groups and the equal distribution of most of the baseline characteristics, we concluded that the dataset is mainly well-balanced.

5.4. Methodology Selection

In the following section, we test most of the hypotheses by running multiple linear regressions. They will enable us to investigate the strength and direction of the relationship between the dependent variable and one or more of the independent variables and make predictions for the expected values of the dependent variable (Malhotra & Dash, 2010). However, before we proceed with the regression analysis, we considered some of its assumptions.

The normality assumption for multiple regression requires a normal distribution of the residuals, or the error in the relationship between the independent variables and the dependent variable in a regression model. It allows for the application of several statistical methods and the importance of it lies in its impact on the accuracy and validity of the statistical inferences and conclusions drawn from the

data. To check for it, we plotted the distribution of the residuals in a histogram chart and ran the Shapiro-Wilk test (STATA, 2010), finding that the residuals are normally distributed.

In addition, the constant variance (or homoscedasticity) assumption surmises that the variability of the residuals in a statistical model remains constant across all levels of the predictor variables (Malhotra & Dash, 2010). It allows for accurate estimation of the model parameters and valid inferences. To check for it, we ran the Breusch-Pagan/Cook-Weisberg test (STATA, 2015), finding that the residuals are distributed with equal variance. A comprehensive explanation of the process for checking the fulfillment of the assumptions is provided in Section 6.2.1.

Finally, to test for mediation as part of the third hypothesis, we used Hayes' (2017) PROCESS Macro tool on SPSS, which allowed us to observe the total, direct, and indirect effects of advertisement design (X) on brand luxury perception (Y) through brand expertise perception (M). In contrast to the four-step regression procedure outlined by Baron and Kenny (1986), which is stated in terms of descriptive non-zero coefficients, PROCESS Macro serves as a direct statistical test for examining the mediation effect. Since the four-step approach is not designed to test the statistical significance of the mediation effect (Wu & Zumbo, 2008), PROCESS Macro was most appropriate for our goal.

6. Results

6.1. Descriptive Statistics

To summarize the sample's characteristics, we compute the descriptive statistics (see Table D1 for the complete results). In the final dataset of 145 participants, 40% are male and 58.6% are female, with the remaining portion having opted for the 'Other' option or chosen not to disclose their gender. Most of the participants (77.2%) fall within the 18 to 34 age range, with limited representation from the older age groups (see Figure 6).

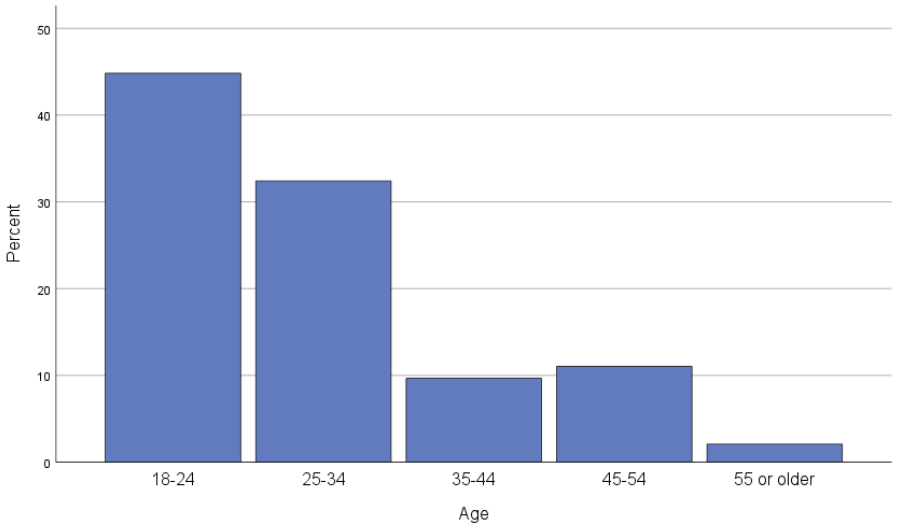


Figure 6. *Sample Age Distribution*

89.7% of participants chose to reveal their household's level of income. While the majority of participants fall within the lower income thresholds, higher income levels are also represented, allowing us to compare sample subsets with different income levels (see Figure 7). The sample contains a considerable proportion of respondents (11.7%) with an annual income of $100,000 or above, letting us capture any potential differences among individuals with fewer financial constraints.

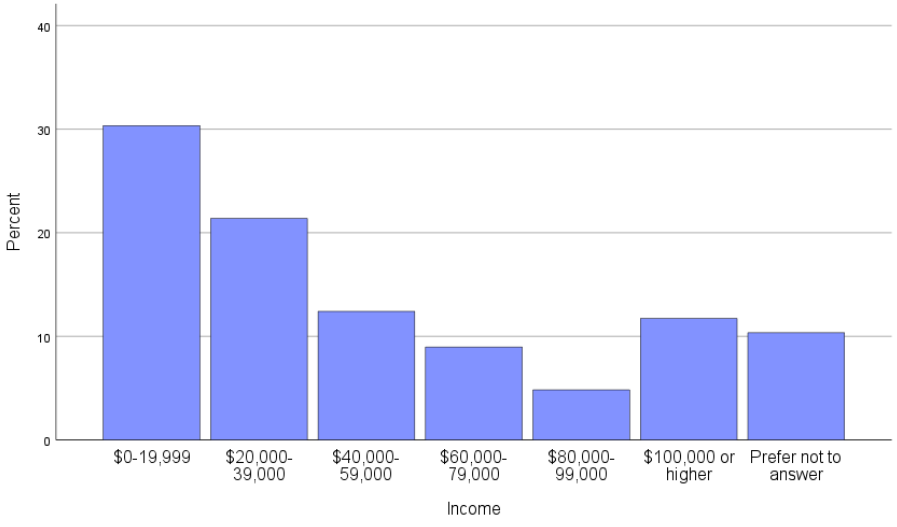


Figure 7. *Sample Income Distribution*

The majority of respondents (81.4%) are White/Caucasian, with very little representation of Asian/Pacific Islander (4.8%), Hispanic (4.1%), and Multiple Ethnicity (0.7%). 9% of the participants did not reveal their ethnicities.

6.2. Hypothesis 1

With the first hypothesis, we are testing whether individuals exposed to the black-and-white ad design have a higher brand luxury perception compared to those exposed to the color ad design. We therefore run a linear regression with *Ad_design* (0=color, 1=black-and-white) as the independent variable and *Mean_luxury* as the dependent variable (Table E1). The relationship is denoted in Equation (1), in which the marginal increase in *Mean_luxury* from seeing the black-and-white ad design (as compared to the color condition) is captured by the $\beta_1$coefficient.

$$Mean\_Luxury = \beta_0 + \beta_1 Ad\_Design + \varepsilon \qquad (1)$$

As expected, the black-and-white ad design has a positive and significant effect on brand luxury perception, with $\beta_1 = .2762$ and p<.01. The brand luxury perception from seeing the color ad design is only captured by the constant $\beta_0 = 3.0997$.

We plot the data as a boxplot to compare the average perceptions of brand luxury across the two ad design conditions (see Figure 8), which further confirms that individuals exposed to the black-and-white ad perceived the brand as more luxurious as compared to those exposed to the color ad, with $Mean\_Luxury_{BW} = 3.3736$ and $Mean\_Luxury_{Color} = 3.0687$.

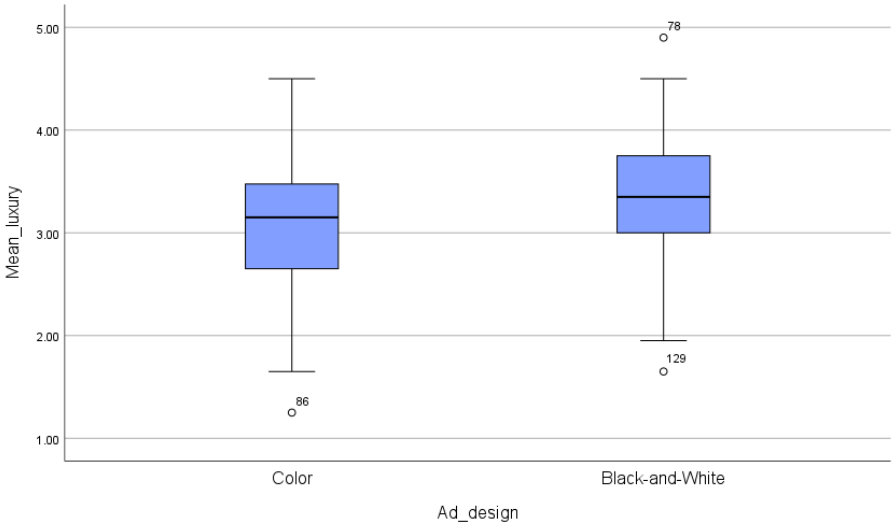


Figure 8. *Boxplot, Mean_luxury by Ad_design*

However, the effect size of $\beta_1$is relatively small and insufficient to lift the participants' perception from one category to the next, i.e., from 'Neutral' to

'Somewhat Agree.' Participants exposed to the color ad fall into the 'Neutral' category of brand luxury perception, with $Mean\_Luxury_{Color} = 3.0687$ (where 3=Neutral). While those exposed to the black-and-white ad had a higher brand luxury perception, with $Mean\_Luxury_{BW} = 3.3736$, they still fall into the 'Neutral' category. Notably, if we had included more than 5 categories, we could have observed incremental changes in the brand luxury perception between participants exposed to the two ad conditions.

The model is statistically significant at 5% with p<.01; however, it has a small explanatory power (R-squared=.0533). We deduce that ad design accounts for 5.33% of the variation in brand luxury perception, inferring that there are other variables (not included in this model) that could explain the variation in the dependent variable.

6.2.1. Assumptions Fulfillment

In addition, to check for the normality assumption fulfillment in the linear regression, we plot the distribution of the residuals from Equation (1), which is shown in Figure 9, and observe a normal (bell-shaped) distribution curve.

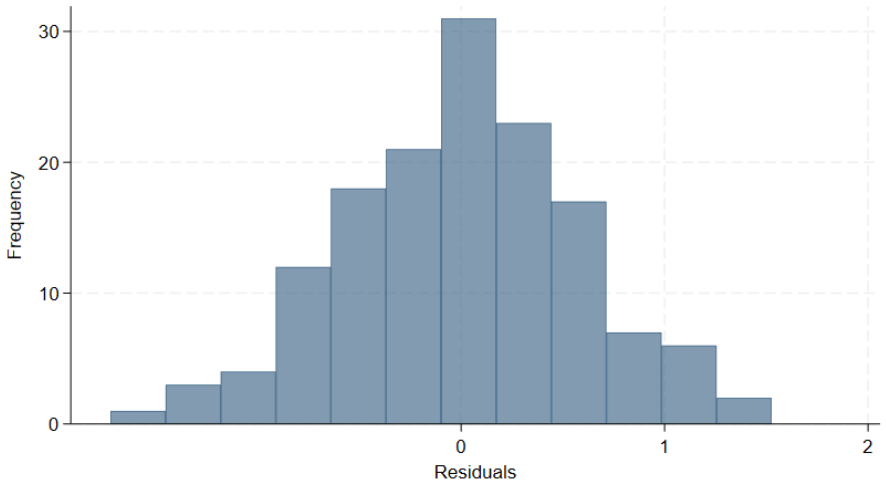


Figure 9. *Distribution of Residuals*

Afterwards, we run the Shapiro-Wilk test, which tests the null hypothesis that the residuals are normally distributed. A highly insignificant p-value of p=0.929 (>.05 = α) (Table E2) makes us retain the null hypothesis and claim that the normality assumption is fulfilled. In addition, to check for the constant variance (or no heteroscedasticity) assumption fulfillment, we run the Breusch-Pagan /

Cook-Weisberg test, which tests the null hypothesis that the residuals are distributed with equal variance. A highly insignificant p-value of p=0.8991 (>.05 = α) (Table E3) allows us to retain the null hypothesis and claim that no heteroscedasticity is present in the residuals, confirming that the constant variance assumption is fulfilled.

6.2.2. Model Extension

To investigate whether the black-and-white ad design *and* the text priming influence brand luxury perception, we extend the model by running a multiple regression with *Ad_design* and *Priming* (0=no text priming, 1=text priming) as independent variables and *Mean_Luxury* as the dependent variable. Equation (2) represents the relationship, where the β_2 coefficient captures the marginal increase in Mean_Luxury resulting from the text priming (as compared to the no text priming).

$$Mean\_Luxury = \beta_0 + \beta_1 Ad\_Design + \beta_2 Priming + \varepsilon \qquad (2)$$

The priming has an insignificant effect on brand luxury perception, with p-value =.429 (>.05 = α) (Table E4). One possible explanation for this could be that the ad design was more influential in shaping brand luxury perception than the priming conditions. Therefore, we reject the supposition that black-and-white design and priming collectively influence brand luxury perception.

6.2.3. State Contingencies

We then control for the *gender (0=male, 1=female)*, *age*, *income*, and *ethnicity* variables, as denoted in Equation (3).

$$Mean\_Luxury = \beta_0 + \beta_1 Ad\_Design + \beta_2 Gender + \beta_3 Age + \beta_4 Income + \beta_5 Ethnicity + \varepsilon \qquad (3)$$

At 5%, age was significant with p=.045 and beta coefficient β_3=.1008, which implies that the influence of black-and-white ad design on brand luxury perception is dependent on an individual's age, i.e., as the age of the respondents exposed to the black-and-white ad design increases, their perception of brand luxury also tends to increase (Table E5). Meanwhile, gender (p=.089), income (p=.425), and ethnicity (p=.645) were insignificant at 5%, which implies that the

influence of black-and-white ad design on brand luxury perception is independent of an individual's gender, income, or ethnicity.

In conclusion, we found considerable evidence that in this sample, individuals exposed to the black-and-white ad design have a higher brand luxury perception compared to those exposed to the color ad design; therefore, we were able to confirm Hypothesis 1.

6.3. Hypothesis 2

6.3.1. Setting up the Model

With the second hypothesis, we are testing whether brand heritage salience moderates the relationship between ad design and brand expertise perception. We further expect that individuals belonging to the primed condition will exhibit a higher brand expertise perception than those in the non-primed condition. We therefore run a linear regression with the advertised brand's expertise perception (*Mean_Expertise)* as the dependent variable and *Ad_design* (0=color, 1=black-and-white) and the brand's perceived heritage (*Mean_Heritage)* as the independent variables. The interaction variable (*Interaction = Ad_design * Mean_Heritage*), serves as the moderator variable. We also control for the priming effect by including *Priming* (0=no text priming, 1=text priming) as a covariate variable (Table F1). The relationship is denoted in Equation (4).

$$Mean\_Expertise = \beta_0 + \beta_1 Ad\_Design + \beta_2 Mean\_Heritage + \beta_3 Interaction + \beta_4 Priming + \varepsilon \quad (4)$$

6.3.2. Assessing Self-Reported Brand Expertise Beliefs

Before comparing the potential differences in how primed and non-primed individuals perceive the advertised brand in terms of its expertise, we first assess their self-reported personal beliefs regarding the influence of brand heritage on their brand expertise perception (Table F2). In Figure 10, we can visually observe that the large majority of participants, throughout their assigned conditions, generally reported that a brand's heritage impacts their perceived brand expertise.

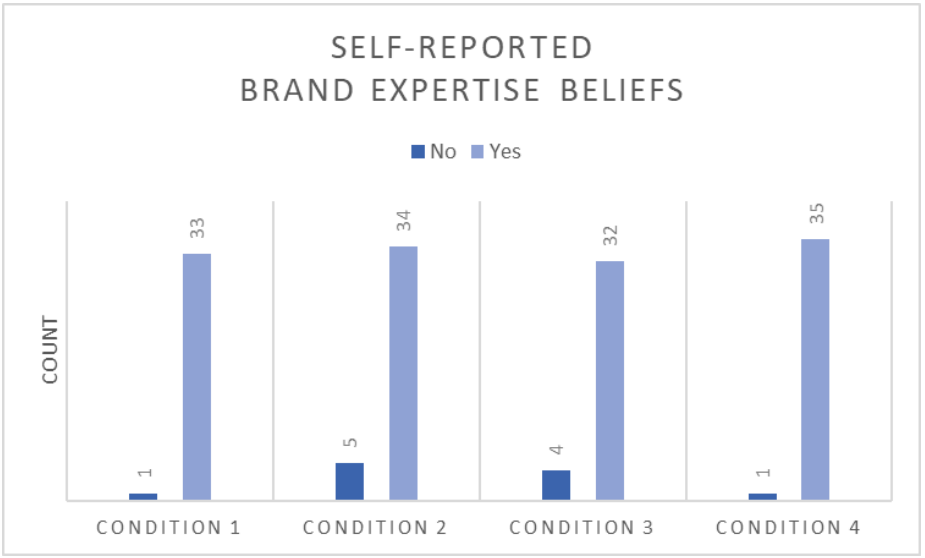


Figure 10. *Self-Reported Beliefs Across All Conditions*

Note. Q14 asked: "In general, do you believe that a brand's heritage influences whether the brand is an expert in the field?"

However, since the question was asked to the participants towards the end of the survey, the condition to which they had been assigned might have had an effect on their self-reported beliefs. To account for the potential influence of both the priming and the black-and-white ad design effects on the participants' beliefs, we run a multiple linear regression. In it, *Expertise_Beliefs* is the dependent (binary) variable and *Ad_Design* and *Priming* are the independent variables. As denoted in Equation (5), the $\beta_1$coefficient captures the marginal increase in *Expertise_Beliefs* resulting from the black-and-white ad design, (as compared to the color one), while the $\beta_2$coefficient captures that resulting from the text priming condition, (as compared to the no text priming condition).

$$Expertise\_Beliefs = \beta_0 + \beta_1 Ad\_Design + \beta_2 Priming + \varepsilon \quad (5)$$

At 5%, the black-and-white ad design (p=.855) and priming (p=.779) effects are highly insignificant, which leads us to conclude that neither had any effects on the participants' self-reported brand expertise beliefs (Table F3). From this, we intend to examine the potential differences in the effects of priming and ad design on self-reported expertise beliefs and generated (measured) expertise beliefs (*Mean_Expertise).* This will be formally tested later on as part of the regression analysis (4).

6.3.3. Checking if the Priming Worked

In continuation of Equation (5), we examine whether the *extent* of the participants' reported brand expertise beliefs (based on brand heritage beliefs)[2] (*ExpHer_Beliefs_Ext)* is impacted by ad design and priming. We thus run another multiple linear regression with *ExpHer_Beliefs_Ext* as the dependent variable and *Ad_design* and *Priming* as the independent variables. As denoted in Equation (6), the $\beta_1$coefficient captures the marginal increase in *ExpHer_Beliefs_Ext* resulting from the black-and-white ad design, as compared to the color one, while the β_2 coefficient captures that resulting from the text priming condition, as compared to the no text priming condition.

$$ExpHer\_Beliefs\_Ext = \beta_0 + \beta_1 Ad\_Design + \beta_2 Priming + \varepsilon \quad (6)$$

At 5%, the black-and-white ad design (p=.258) is insignificant, while text priming (p<.01) is highly significant with $\beta_2 = .4409$ (Table F4). This indicates that the marginal increase of .4409 in the dependent variable resulted from the text priming condition, which suggests that the priming was successful in influencing brand heritage salience($\Delta Mean\_ExpHer\_Beliefs\_Ext \simeq 0.44$).

6.3.4. Testing the Hypothesis

We then proceed with the analysis of the initial regression (4). To reiterate: we run a linear regression with the advertised brand's expertise perception (*Mean_Expertise)* as the dependent variable, while *Ad_design* and *Mean_Heritage* are the independent variables, and *Interaction* is the moderator variable. We also control for the priming effect by adding *Priming* as a covariate variable (Table F1).

$$Mean\_Expertise = \beta_0 + \beta_1 Ad\_Design + \beta_2 Mean\_Heritage + \beta_3 Interaction + \beta_4 Priming + \varepsilon \quad (4)$$

While the model (p-value<.01) is statistically significant, it has moderat explanatory power (R-squared = .2752). Ad design is insignificant at 5% with a p-value of .283, while the advertised brand's perceived heritage *(Mean_Heritage)*

[2] In Q15, we asked participants "To what extent do you believe that a brand's heritage influences whether the brand is an expert?" and measured their responses on a 1-5 Scale (1=Not at all, 5=A great deal).

is highly significant with p-value<.01 and $\beta_2 = .3458$. The latter indicates that the marginal increase in the advertised brand's expertise perception resulted from its perceived heritage. In addition, the interaction term is highly insignificant with a p-value of .207, which leads us to reject the moderation hypothesis. What's more, priming is also insignificant with p=.194, which means that the advertised brand's perceived expertise *(Mean_Expertise)* was independent of the priming condition.

A potential reason behind the insignificant ad design could be that, since participants were presented with an unfamiliar brand, the chosen ad visual simply was not enough to transmit brand expertise, which eroded the priming effect on the advertised brand's expertise perception. What's more, the passage to which the primed participants were exposed did not say much about the particular brand in question, which might explain the insignificant effect of priming on brand expertise perception.

However, given the highly significant impact of perceived brand heritage (p-value<.01) on brand expertise perception, we propose that *Mean_Heritage* may act as a potential mediator in the relationship between *Ad_design* and *Mean_Expertise.*

6.4. Hypothesis 3

With the third hypothesis, we are testing whether *brand expertise perception* (M) mediates the relationship between *advertisement design* (X) and *brand luxury perception* (Y). We run a simple mediation analysis with PROCESS Macro (Model 4) on SPSS (Hayes, 2017), with confidence level for all CIs in the output at .95 and number of bootstrap samples for percentile bootstrap CIs at 1000. The output is found in Table G1. The overall model is highly significant with F(1,143)=9.19, p-value<.01 and beta coefficient .304, which further confirms that black-and-white advertising design predicts brand luxury perception (Hypothesis 1). However, the model has a low explanatory power (R-squared=.06).

Then, we examine whether *advertising design* (X) predicts *brand expertise perception* (M). With F(1, 143)=2.91, p=.089, at 10%, advertising design is significant. However, in this case too, the model has a low explanatory power (R-squared=.02). The beta coefficient =.1844 indicates that in our sample, participants were positively influenced by the black-and-white ad design when

evaluating the advertised brand's expertise. Furthermore, when Ad_Design=1, the average perception of brand expertise is higher compared to that when Ad_Design=0 (*M.Mean_Expertise | Color* = 3.1613, *M.Mean_Expertise | BW* = 3.3457). Therefore, we claim that individuals exposed to the black-and-white ad design had a higher brand expertise perception than those exposed to the color ad design, thus confirming Hypothesis 3(a).

Afterwards, we examine whether *brand expertise perception* (M) predicts *brand luxury perception* (Y). With F(1, 143)=19.26, p<.01, brand expertise perception is highly significant. In this case, the model has a moderate explanatory power (R-squared = .29). The beta coefficient is .41, which indicates that when evaluating the advertised brand's luxuriousness, individuals in our sample were positively influenced by their generated beliefs about the brand's expertise, confirming Hypothesis 3(b). We also found that advertising design (X) is lessened while predicting brand luxury perception (Y) with the mediator in the equation, since the beta coefficient is .22 (less than the previous .304). This can be seen as an indication of a potential mediating effect.

Lastly, we observe the total, direct, and indirect effects of *advertisement design* (X) on *brand luxury perception* (Y). The indirect effect of advertisement design (X) on brand luxury perception (Y) through brand expertise perception (M) is .0846, but insignificant at 5%, given that the confidence interval includes zero (BootLLCI = =-.0138 and BootULCI=.1982). However, when we rerun the mediation analysis with confidence level at .90 (Table G2), the indirect effect becomes significant, with the confidence intervals not including zero (BootLLCI = .0029 and BootULCI = .1788). We thus claim that the proportion of the total effect (.3049) of *advertisement design* (X) on *brand luxury perception* (Y) that operates indirectly is 27.7%. Most of the effect (72.3%) is operated directly through advertisement design. Figure 11 showcases the statistical model.

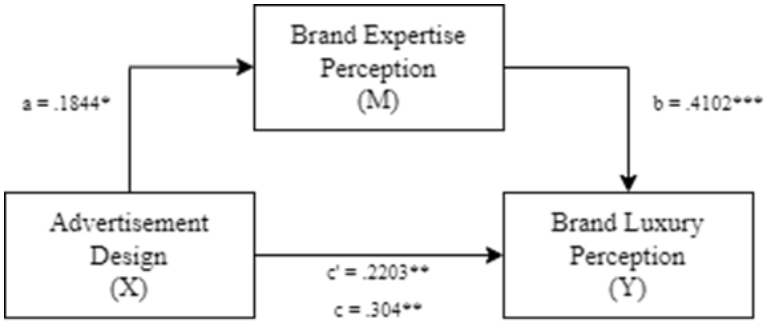


Figure 11. *The Statistical Model of Hypothesis 3.*

*Notes. *p<.10, **p<.05, ***p<.01*

As a result, given the aforementioned results, we are cautious in confirming Hypothesis 3 at α=.10.

6.5. Hypothesis 4

With the fourth hypothesis, we are testing whether *brand luxury perception* positively influences *purchase intent*, when controlling for exposure to the black-and-white ad design. First, to establish whether brand luxury perception impacts our participants' purchase intent, we run a linear regression with *Purchase_Intent* as the dependent variable and brand luxury perception (*Mean_Luxury*) as the independent variable. We also include ad design as an additional independent variable in the model. As denoted in Equation (7), the β_1 coefficient captures the marginal change in purchase intent resulting from brand luxury perception, while the β_2 coefficient captures that resulting from the black-and-white ad design, as compared to the color ad design.

$$Purchase\_Intent = \beta_0 + \beta_1 Mean\_Luxury + \beta_2 Ad\_Design + \varepsilon \qquad (7)$$

At 5%, brand luxury perception is highly significant with p<.01 and β_1=.7672, which indicates that a marginal increase of .7672 in purchase intent results from brand luxury perception (Table H1). Moreover, ad design is also significant at 5% with p-value=.015 and β_2=.5223, which suggests that participants exposed to the black-and-white ad design exhibited a higher purchase intent than those exposed to the color ad design. However, the effect size is relatively small and insufficient to lift the participants' purchase intent from one category to the next, e.g., from 'Somewhat unlikely' to 'Neither likely nor unlikely.' Participants exposed to the color ad design fall into the 'Somewhat unlikely' category of purchase intent, with *Mean_purchase_intent* = 2.08, (where 2=Neither likely nor unlikely). While those exposed to the black-and-white ad design expressed higher purchase intent with *Mean_purchase_intent* = 2.81, they also fall into the 'Neither likely nor unlikely' category.

Additionally, we extend the model to account for brand expertise perception as an additional independent variable. As denoted in Equation (8), the $\beta_3$coefficient captures the marginal change in purchase intent resulting from brand expertise perception.

$$Purchase\_Intent = \beta_0 + \beta_1 Mean\_Luxury + \beta_2 Ad\_Design + \beta_3 Mean\_Expertise + \varepsilon \quad (8)$$

Brand expertise perception is highly significant with p<.01 and β_3= .7814, which indicates that a marginal increase of .7814 in purchase intent results from brand expertise perception (Table H2). However, in this model, brand luxury perception becomes insignificant at 5% with p-value=.064 and β_1=.3541, which suggests that brand expertise perception might have had a larger influence on the participant's purchase intent than brand luxury perception.

In sum, there is enough statistical evidence for us to claim that for our sample's participants, brand luxury perception had a positive effect on their purchase intent when controlling for the black-and-white ad design, thus supporting Hypothesis 4.

6.6. Summary of the Results

The results obtained in this section are showcased in Figure 12, which depicts the strength and magnitude of the relationships between the variables in our conceptual model.

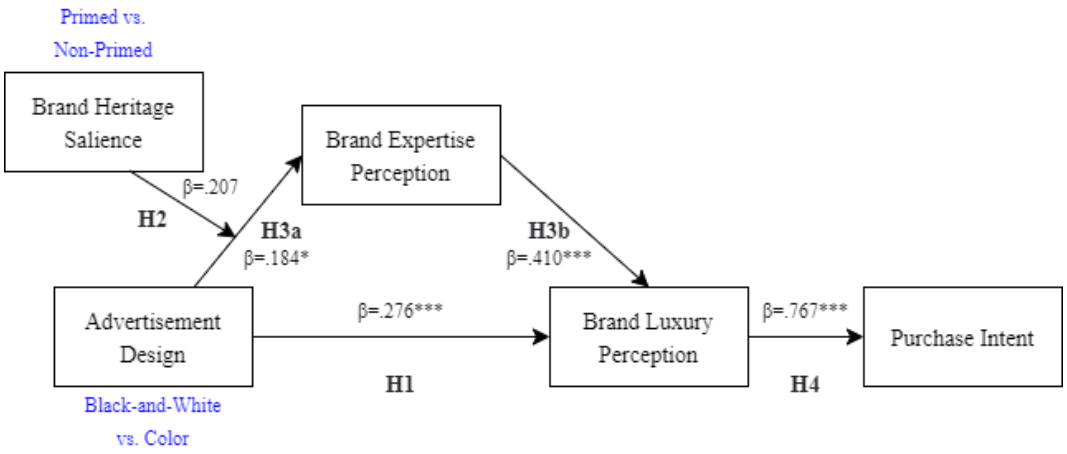


Figure 12. *The Conceptual Model, Post-Analysis*

*Notes. *p<.10, **p<.05, ***p<.01*

7. Discussion

The current study aimed to investigate the impact of black-and-white ad design on shaping the perception of brand luxury while also exploring the mediating role of the perceived expertise of said brand within this relationship. We further sought to establish whether the influence of black-and-white imagery on the perception of brand expertise varies across different levels of brand heritage salience. Ultimately, we intended to examine whether the mere perception of a brand as luxurious, regardless of its actual market standing, is a strong enough factor to enhance consumers' stated purchase intent towards the brand.

The findings provided support for most of the hypothesized relationships, indicating that black-and-white ad design strongly contributes to shaping brand luxury perception in consumers' minds, and this effect is loosely mediated by the perceived expertise of the brand in the field. The results of the present study contribute to the field of visual marketing (Labrecque et al., 2013; Lee et al., 2014; Pecot & De Barnier, 2017) by enriching the understanding of external brand-controlled cues capable of communicating brand luxury. While prior research has thoroughly covered the role of extrinsic cues in shaping brand perceptions (Butcher & Pecot, 2022; Morhart et al., 2015; Pfannes et al., 2021; Wernerfelt, 1988; Zhang et al., 2019), the current study sheds light on how brands can enhance their luxuriousness in the eyes of the consumers by advertising in black-and-white, thus narrowing the broader theoretical understanding of visual elements in developing consumers' brand perceptions to specific actionable insights.

7.1. Key Findings

The first hypothesis proposed that compared to ads in full color, black-and-white ad visuals heighten consumers' perceptions of brand luxury. The findings of the present study are consistent with extant research, which suggests that black-and-white imagery induces a sense of rarity (Greenleaf, 2009) and brand artistry (Baetens, 2011), qualities considered crucial for luxury brands (Kapferer & Valette-Florence, 2016; Park et al., 2020; Vigneron & Johnson, 2004). Hence, achromatic imagery can effectively communicate sophistication and exclusivity, leading to an enhanced perception of brand luxury. Another stream of prior research implies that incorporating black-and-white visuals in luxury brand

communications is beneficial for creating a perceived distance between luxury and mass-market brands (Lee et al., 2014: Park et al., 2020; Wang et al., 2022). The results obtained in this study thus confirm the importance of visual elements, particularly black-and-white ad design, in shaping consumers' perception of brand luxury.

The second hypothesis aimed to examine whether a deliberate emphasis on brand heritage enhances perceived brand expertise. Specifically, we expected individuals both (1) exposed to the black-and-white ad and (2) primed with brand heritage cues to exert the highest brand expertise perception among all four experimental conditions. Similar to Kirmani and Rao (2000), we demonstrated that advertising visuals, in particular, textual elements, can alter the extent of brand heritage that is apparent to the average consumer. We further confirmed Carsana and Jolibert's (2018) findings that brand heritage cues enhance the perceived competence and capability of a brand, both of which constitute the main underlying components of brand expertise. In line with the prior research claiming that brand heritage impacts consumers' brand perceptions (Desai et al., 2008; Moulard et al., 2016; Vigneron & Johnson, 2004; Zeren & Kara, 2020), our findings revealed that emphasizing a brand's heritage contributes to shaping the perception of brand expertise.

However, in contrast to Warlop et al.'s (2005) claim that the color palette used in brand communications as a stand-alone factor significantly impacts consumers' perception of brand expertise, we failed to establish the causal relationship between black-and-white imagery and perceived brand expertise. Our findings further oppose the prior literature that suggests that black-and-white visuals communicate timelessness and endurance (Zettl, 2013), the inherent components of brand expertise (Erdem & Swait, 2004). The effect of black-and-white ad visuals on brand expertise perception became negligible when we accounted for brand heritage salience, suggesting that the colors used in ads affected perceived brand expertise through brand heritage salience rather than directly. The obtained findings thus led us to reject Hypothesis 2 and propose that brand heritage salience serves as a *mediator* rather than a moderator. While unexpected, this finding paves a potential pathway for further research, as discussed in the following section.

The data tentatively supports the third hypothesis, which aims to establish the mediating effect of brand expertise perception on the relationship between black-and-white ads and perceived brand luxuriousness. Hypothesis 3(a), proposing that the black-and-white ad design directly influences brand expertise perception, was not fully substantiated, with results being significant only at α=.10. These findings contradict the prior research suggesting that black-and-white imagery significantly enhances perceived product quality, a key driver of brand expertise perception (Hoyer et al., 1986; Lee et al., 2014). The underlying cause of such discrepancy may be due to the fact that black-and-white imagery likely affects brand expertise through perceived brand heritage rather than directly. Therefore, individuals exposed to black-and-white ads tend to connect the brand to the past, thus forming a belief about its heritage and making the brand more likely to be perceived as an expert. This mechanism is more feasible, since consumers are unlikely to think that the brand is an expert simply because it advertises in black-and-white.

In line with our expectations, the results strongly support Hypothesis 3(b), claiming that perceived brand expertise positively influences brand luxury perception. Wiedmann et al. (2009) also established that perceived superior quality shapes luxury brand attitudes. In line with previous research (Kapferer, 1997; Kapferer & Bastien, 2012) we also found that quality perception, as a key driver of perceived brand expertise, positively impacts consumers' brand luxury perception. When consumers perceive a brand as highly knowledgeable and competent, i.e., an expert, they are more likely to associate it with luxury, and the visual cues provided by black-and-white ads (when coupled with those of brand heritage salience) further reinforce this perception.

Finally, we found substantial evidence to support the fourth hypothesis, suggesting that consumers exert higher intent to purchase when they perceive the brand as luxurious. A great body of literature suggests that consumers tend to be more willing to purchase luxury goods as compared to their non-luxury counterparts, even when both offer identical functional benefits (Audrin et al., 2017; Ho et al., 2022). We thus confirm prior findings in the field and establish that the mere perception of the brand as luxurious, regardless of it being one, can increase consumers' purchase intention.

7.2. Theoretical Implications

The outlined findings contribute to the existing body of literature in several important ways. The present study underscores the importance of black-and-white advertisements as a means to enhance brand luxury perception, roughly mediated by perceived brand expertise. First, by providing empirical support for the majority of hypothesized relationships, we validate and reinforce previous research suggesting that visual cues influence consumer brand perceptions and attitudes (Batra et al., 1993; Wernerfelt, 1988) and that consumer perceptions shaped by black-and-white images differ from those of color (Greenleaf, 2009). Specifically, our findings align with and further confirm previous research claiming that black-and-white ads have a significant impact on forming brand luxury perception (Lee et al., 2014; Stillman et al., 2020; Wang et al., 2022). On a large scale, this enriches the extant research by further substantiating the important role of visual cues in manipulating brand perceptions (Morhart et al., 2015; Wernerfelt, 1988; Zhang et al., 2019).

We further underscore the importance of perceived brand expertise in forming luxury brand associations (Kapferer & Bastien, 2012; Wiedmann et al., 2009), therefore highlighting the multifaceted nature of brand luxury, with brand expertise as a key component. The results also indicate that brand heritage salience may likely take the role of a mediator rather than a moderator, thereby challenging previous assumptions.

Finally, we corroborate the extant research suggesting the importance of perceived brand luxury in driving consumers' purchase intent (Audrin et al., 2017; Ho et al., 2022). We further establish the symbolic nature of luxury in shaping brand beliefs (Vigneron & Johnson, 2004), as the current study was conducted using a fictional brand, thus restricting participants from assessing the brand's qualities directly and making them rely solely on their perceptions of the advertised brand. To conclude, individuals who perceived the brand as more luxurious, irrespective of it being one, were more willing to purchase from it. This holds for individuals exposed to black-and-white ad visuals, as those participants exerted a consistently higher purchase intent compared to respondents who viewed the ad in full color.

Overall, the current research contributes to the existing literature by advancing the understanding of how black-and-white visual cues, brand heritage, and brand

expertise collectively influence brand luxury perception. This study also offers valuable actionable insights for marketers, as discussed in the following section.

7.3. Managerial Implications

The results of the current study have several practical implications for luxury brand managers seeking to increase the perceived luxuriousness of their brands. First and foremost, the findings suggest that marketers can leverage black-and-white imagery in advertising campaigns to enhance consumers' perception of brand luxury. This might be especially relevant for new market entrants in the luxury goods sector who lack a long brand history and thus solely rely on visual marketing to communicate the brand's superiority. Marketers can therefore leverage the associations of sophistication and exclusivity linked to black-and-white imagery to create an aura of rarity and elitism surrounding their brands, in turn creating a perception of luxury.

Since brand expertise is a key contributing factor in luxury perception formation, highlighting a brand's knowledge, competence, and expertise in the field is an effective strategy to enhance the effect of black-and-white ads on perceived brand luxury. Furthermore, although brand heritage did not directly moderate the relationship between black-and-white ads and perceived brand expertise, the analysis shows that brand heritage can still be crucial in influencing brand luxury formation, possibly in the form of a mediator. Therefore, brands should leverage their heritage by communicating it via salient cues across various consumer touchpoints, including advertising and packaging.

This marketing approach should be complemented with consistent messaging that highlights the values and mission the brand stands for and its commitment to quality (Baek et al., 2010; Jin et al., 2015). The brand can further influence its perceived expertise via tailored branded communications by incorporating visual elements such as the date and location of the brand's foundation (Pfannes et al., 2021), evolution of the brand's logo and specific fonts (Henderson et al., 2004), and its technology and people (Pfannes et al., 2021) in the brand's advertising. Emphasizing brand heritage can enhance perceived brand expertise, thus reinforcing the relationship between black-and-white ad visuals and luxury associations.

Moreover, marketers can benefit from designing black-and-white advertisement campaigns to target audiences most receptive to this advertising approach. As demonstrated in our Results section, participants in the older age groups rely more heavily on the ad design when evaluating the luxuriousness of the brand than the average respondent. Hence, it is probable that this specific advertising campaign will achieve greater success when targeting older market segments.

It is important to note that these strategic recommendations should be considered in conjunction with other marketing strategies, such as superior customer service, personalized communications, premium pricing, elegant packaging, exclusive distribution channels, and the overall emphasis on exclusivity and craftsmanship, which altogether reinforce the desired luxury perception and contribute to maintaining a consistent brand image. By implementing these tactics, marketers can capitalize on the current findings and cultivate a strong luxury perception of the brand, stimulate purchase intent, and ultimately strengthen the brand's equity in the competitive luxury market.

8. Limitations and Further Research

In spite of this study's contributions, it is important to acknowledge its limitations. The latter open up opportunities for future research, which are addressed in this section.

As part of the experimental stimuli, in the color condition, we exposed participants to an advertisement that incorporated the color blue. We adjusted the image's colors to have a higher saturation and lower lightness, since these components play an important role in influencing arousal (Gorn et al., 1997; Valdez & Mehrabian, 1994) and predicting perceptions (D'Andrade & Egan, 1974; Gorn et al., 2004; Valdez & Mehrabian, 1994). However, the presence of this particular color in the advertisement poses certain limitations. Studies have shown that blue increases relaxation and calmness feelings compared to the other colors (AL-Ayash et al., 2015), which might have subdued the effect of the increased saturation. Therefore, it is uncertain whether the black-and-white ad design enhanced the perception of luxury, or if the color choice (blue) in the color ad design reduced the perception of luxury relative to the other condition by reducing arousal. In future studies, researchers can explore different color choices,

such as longer wavelength colors (e.g., red, orange) that are more stimulating than shorter wavelength ones (e.g., blue, green), within the color ad design to examine their impact on brand luxury perception. Moreover, we used Adobe Photoshop to select colors based on the numerical values of color models; however, the lack of calibration between software and monitors limits the effectiveness of this method (Elliot & Maier, 2014). Another approach to be considered involves using a spectrophotometer to create color stimuli, which offers accuracy and flexibility across different formats. Lastly, we recommend that when employing these methods, researchers also consider viewing angles and the potential individual variability in color perception.

Another limitation of this study is the ad's focus on a single luxury product category, namely, luxury watches, that specifically targets a particular gender, (in our case, men). This study can be further replicated by incorporating other luxury product categories in the ad, such as men's and women's luxury fashion, leather goods, jewelry, eyewear, cosmetics, and fragrances. Moreover, we failed to present the experimental stimuli in a time-controlled manner, which can impact the validity and reliability of the results (Elliot & Maier, 2014). To address this limitation, researchers can replicate the survey in a way that requires respondents to view the visual stimuli for a minimum (pre-established) time before proceeding to the next question. This time-controlled approach will ensure that participants have an adequate exposure duration to the stimuli, allowing for more accurate assessments of their perceptions and minimizing potential biases.

In the survey formulation, we measured the participants' responses on a 5-point Likert scale with identical labels for response options for each question. This choice prevented us from capturing minor differences in responses, especially in the variables measuring brand luxury perception and purchase intent. By incorporating a 7-point Likert scale, we could have effectively captured a greater level of detail in participants' varying degrees of agreement or disagreement. This enhanced granularity would have allowed us to better identify and analyze patterns and distinctions among the participants' perceptions. Additionally, our survey contained numerous questions measuring responses on a Likert scale, the repetitive nature of which might have diluted the participants' focus. While we conducted an attention check to account for this possibility and excluded participants who failed it, future studies can integrate Likert-scale items with

open-ended questions to encourage participants to provide qualitative feedback or elaborate on their responses. In addition, while categorical variables serve as a good approximation of individuals' perceptions, they do not fully capture nuances or account for social desirability response bias (Saunders et al., 2003). Therefore, researchers can consider conducting additional field studies to assess consumer responses in real-world settings. In these studies, they can implement objective measures, such as physiological responses (e.g., eye tracking or heart rate measurements).

In recruiting our participants, we relied on the snowball sampling technique, which may have compromised the representativeness of the results (Malhotra & Dash, 2010). Also, we acknowledge that the sample size was rather small across the four conditions. While this mere fact does not necessarily hinder the results, as long as the sample is representative of the population (Saunders et al., 2003), our sample consisted of a significant proportion of females (58.5%), with individuals predominantly from the 25-34 age group (32.4%), the White/Caucasian ethnicity group (81.4%), and the $0-19,999 income group (32.4%). In particular, the latter aspect might have compromised the sample's representativeness, as luxury goods producers claim that their customer base primarily consists of individuals from the upper-income class (Husic & Cicic, 2009). Consequently, replicating the study with a more diverse and representative sample could enhance the external validity and generalizability of the findings.

In our analysis, we focused on the influence of black-and-white ad design as the primary factor in shaping brand luxury perception. We then expanded our model to incorporate underlying drivers of luxury perceptions, specifically focusing on brand expertise perception and heritage salience. However, these factors accounted for a relatively small portion of the variation observed in brand luxury perception. Hence, it is reasonable to conclude that there are likely other factors at play, such as additional visual components within the advertisement, confounding variables, and underlying drivers of luxury perception that could contribute to the observed variations in the dependent variable.

Moreover, while we failed to gather enough statistical evidence for the moderation effect of brand heritage salience on the relationship between ad design and brand expertise perception, we found sound evidence that brand heritage salience

positively and directly impacts brand expertise perception. Therefore, we suggest that further research explore the potential mediating effect of brand heritage salience on the relationship between ad design and brand expertise. Furthermore, we observed significance (at $\alpha = .10$) for the mediating effect of brand expertise perception on the relationship between ad design and brand luxury perception. However, we found strong evidence that brand expertise perception positively impacts brand luxury perception. Therefore, further research could improve upon this study by using advertising imagery that clearly transmits brand expertise. This can be achieved by incorporating elements of brand heritage, e.g., date and location of a brand's foundation, images showcasing the brand's people, technology, and Omni-temporality (Butcher & Pecot, 2022).

By addressing these limitations and incorporating the suggested recommendations, future research can advance this study's findings and provide a more thorough understanding of how visual elements, in particular, black-and-white, influence the formation of perceived brand luxury. This would contribute to the knowledge expansion in the field of visual marketing, while empowering luxury brand managers to make better-informed decisions regarding the utilization of visual cues in their advertising campaigns.

9. References

Aaker, D. A. (1992). The value of brand equity. *Journal of business strategy*, *13*(4), 27-32. https://doi.org/10.1108/eb039503

Aaker, J. L. (1997). Dimensions of brand personality. *Journal of Marketing Research, 34*(3), 347–356. https://doi.org/10.2307/3151897

Afzal, H., Khan, M. A., ur Rehman, K., Ali, I., & Wajahat, S. (2010). Consumer's trust in the brand: Can it be built through brand reputation, brand competence and brand predictability. *International business research, 3*(1), 43.

Ajzen, I., & Fishbein, M. (1975). *Belief, Attitude, Intention, and Behavior: An introduction to theory and research* (I. Ajzen, Ed.). Addison-Wesley Publishing Company.

AL-Ayash, A., Kane, R. T., Smith, D., & Green-Armytage, P. (2016). The influence of color on student emotion, heart rate, and performance in learning environments. Color Research & Application, 41(2), 196–205. https://doi.org/10.1002/col.21949

Amatulli, C., De Angelis, M., & Donato, C. (2020). An investigation on the effectiveness of hedonic versus utilitarian message appeals in luxury product communication. *Psychology & Marketing*, *37*(4), 523-534.

Amatulli, C., De Angelis, M., Pichierri, M., & Guido, G. (2018). The importance of dream in advertising: Luxury versus mass market. *International Journal of Marketing Studies*, *10*(1), 71-81.

Arnheim, R. (1969). *Art and visual perception: A psychology of the creative eye* (New version). University of California Press.

Arnheim, R. (1974). On the nature of photography. *Critical Inquiry, 1*(1), 149–161. http://www.jstor.org/stable/1342924

Audrin, C., Brosch, T., Chanal, J., & Sander, D. (2017). When symbolism overtakes quality: Materialists consumers disregard product quality when faced with luxury brands. *Journal of Economic Psychology*, *61*, 115-123.

Baek, T. H., Kim, J., & Yu, J. H. (2010). The differential roles of brand credibility and brand prestige in consumer brand choice. *Psychology & Marketing*, *27*(7), 662-678.

Baetens, J. (2011). From black and white to color and Back: What does it mean (not) to use color? *College Literature, 38*(3), 111–128. 10.1353/lit.2011.0027

Balmer, J. M. (2011). Corporate heritage identities, corporate heritage brands and the multiple heritage identities of the British Monarchy. *European Journal of Marketing*.

Balmer, J. M., & Greyser, S. A. (2006). Corporate marketing: Integrating corporate identity, corporate branding, corporate communications, corporate image and corporate reputation. *European journal of marketing*, *40*(7/8), 730-741.

Baron, R., & Kenny, D. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*. 1173-1182. https://doi.org/10.1037//0022-3514.51.6.1173

Batra, R., Lehmann, D. L., & Singh, D. (1993). *The brand personality component of goodwill: Some antecedents and consequences.* In D. A. Aaker & A. Biel (Eds.), Brand equity and advertising. Hillsdale: Erlbaum. 83–96.

Beck, J. (1972). *Surface color perception.* NY: Cornell University Press.

Bellman, S., Schweda, A., & Varan, D. (2009). Viewing angle matters—Screen type does not. *Journal of Communication*, *59*(3), 609-634.

Berg, A., Straub, M., Tozuka, Y., & Wu, W. (2022). *Japanese luxury shoppers are embracing omnichannel.* McKinsey & Company. Retrieved May 10, 2023, from https://www.mckinsey.com/industries/retail/our-insights/japanese-luxury-shoppers-are-embracing-omnichannel

Beverland, M. B., Lindgreen, A., & Vink, M. W. (2008). Projecting authenticity through advertising: Consumer judgments of advertisers' claims. *Journal of advertising*, *37*(1), 5-15.

Biederman, I. (1987). Recognition-by-Components: A theory of human image understanding. *Psychological Review, 94*(2), 115-47.

Biederman, I., & Ju, G. (1988). Surface versus edge-based determinants of visual recognition. *Cognitive Psychology, 20(*1), 38-64.

Bloom, P. N., Edell J., & Staelin R. (1994). Criteria for assessing research on the effects of marketing communications. Marketing Science Institute working paper, 94-123.

Bottomley, P. A., & Doyle, J. R. (2006). The interactive effects of colors and products on perceptions of brand logo appropriateness. *Marketing Theory, 6*(1), 63-83. SAGE Journals. https://doi.org/10.1177/1470593106061263

Brown, S., Kozinets, R. V., & Sherry, J. F. (2003). Sell me the old, old story: Retro marketing management and the art of brand revival. *Journal of Customer Behaviour, 2*(2), 133-147.

Brysbaert, M. (2019). How many participants do we have to include in properly powered experiments? A tutorial of power analysis with reference tables. *Journal of cognition*.

Burghausen, M., & Balmer, J. (2015). Corporate heritage identity stewardship: a corporate marketing perspective. *European Journal of Marketing, 49*(1/2), 22-61.

Butcher, J., & Pecot, F. (2022). Visually communicating brand heritage on social media: champagne on Instagram. *Journal of Product & Brand Management, 31*(4), 654-670. https://doi.org/10.1108/JPBM-01-2021-3334

Carsana, L., & Jolibert, A. (2018). Influence of iconic, indexical cues, and brand schematicity on perceived authenticity dimensions of private-label brands. *Journal of Retailing and Consumer Services, 40*, 213-220.

Chattopadhyay, A., & Basu, K. (1990). Humor in advertising: The moderating role of prior brand evaluation. *Journal of Marketing Research*, 27(4), 466-476.

Coren, S. (2003). *Sensation and perception.* Wiley Online Library.

Crowley, A. E. (1993). The two-dimensional impact of color on shopping. *Marketing Letters, 4*, 59–69.

D'Andrade, R., & Egan, M. (1974). The color of emotion. *American Ethnologist, 1*(1), 49–63.

D'Arpizio, C., Levato, F., Prete, F., & de Montgolfier, J. (2023). *Renaissance in uncertainty: luxury builds on its rebound.* Bain & Company. Retrieved May 10, 2023, from https://www.bain.com/insights/renaissance-in-uncertainty-luxury-builds-on-its-rebound/

Davidoff, J. (1991). *Cognition through color.* The MIT Press.

Delgado-Ballester, E., & Munuera-Aleman, J. L. (2002). Development and validation of a brand trust scale across product categories: a confirmatory and multigroup invariance analysis. In *American Marketing Association. Conference Proceedings* (Vol. 13, p. 519). American Marketing Association.

Deloitte. (2022, November 30). *Global Powers of Luxury Goods 2022*. Deloitte. Retrieved May 10, 2023, from https://www.deloitte.com/global/en/Industries/consumer/analysis/gx-cb-global-powers-of-luxury-goods.html

DelVecchio, D. S., Jae, H., & Ferguson, J. L. (2018). Consumer aliteracy. *Psychology & Marketing, 36*(2), 89–101.

Desai, P. S., Kalra, A., & Murthi, B. P. S. (2008). When old is gold: The role of business longevity in risky situations. *Journal of Marketing*, *72*(1), 95-107.Ho et

Elliot, A. J., Maier, M. A., Moller, A. C., Friedman, R., & Meinhardt, J. (2007). Color and psychological functioning: The effect of red on performance attainment. *Journal of Experimental Psychology: General, 136*, 154–168.

Elliot, A. J., & Maier, M. A. (2014). Color psychology: Effects of perceiving color on psychological functioning in humans. *Annual Review of Psychology, 65*, 95–120. https://doi.org/10.1146/annurev‐psych‐010213‐115035

Ellis, W. D. (2013). *A source book of gestalt psychology.* Routledge.

Erdem, T., & Swait, J. (2004). Brand credibility, brand consideration, and choice. *Journal of consumer research*, *31*(1), 191-198.

Erdem, T., Swait, J., & Louviere, J. (2002). The impact of brand credibility on consumer price sensitivity. *International Journal of Research in Marketing*, *19*(1), 1-19.

Ford, J. B., Merchant, A., Bartier, A. L., & Friedman, M. (2018). The cross-cultural scale development process: The case of brand-evoked nostalgia in Belgium and the United States. *Journal of Business Research*, *83*, 19-29.

Fraser, T., & Banks, A. (2004). *Designer's color manual: The complete guide to color theory and application.* San Francisco: Chronicle Books.

General Data Protection Regulation (GDPR) (2022). Retrieved from: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri¼CELEX:32016R0679&from¼EN

Ghosh, A. K., Chakraborty, G., & Bunch Ghosh, D. (1995). Improving brand performance by altering consumers′ brand uncertainty. *Journal of product & brand management*, *4*(5), 14-20.

Godey, B., Manthiou, A., Pederzoli, D., Rokka, J., Aiello, G., Donvito, R., & Singh, R. (2016). Social media marketing efforts of luxury brands: Influence on brand equity and consumer behavior. *Journal of Business Research, 69*. https://doi.org/10.1016/j.jbusres.2016.04.181

Goodman, L. A. (1961). Snowball sampling. *The annals of mathematical statistics*, 148-170.

Gorn, G. J., Chattopadhyay, A., Sengupta, J., & Tripathi, S. (2004). Waiting for the web: how screen color affects time perception. *Journal of marketing research, 41*(2), 215-225.

Gorn, G. J., Chattopadhyay, A., Tracey, Y., & Dahl, D. W. (1997). Effects of color as an executional cue in advertising: They're in the shade. *Management Science, 43*, 1387–1400.

Greenleaf, E. A. (2009). Does everything look worse in black and white? The role of monochrome images in consumer behavior. In A. Krishna (Eds.), *Sensory Marketing: Research on the Sensuality of Products*, (241-258). Routledge.

Gu, S., Ślusarczyk, B., Hajizada, S., Kovalyova, I., & Sakhbieva, A. (2021). Impact of the covid-19 pandemic on online consumer purchasing behavior. *Journal of Theoretical and Applied Electronic Commerce Research*, *16*(6), 2263-2281.

Ha, L. (2008). Online advertising research in advertising journals: A review. *Journal of Current Issues & Research in Advertising, 30*(1), 31-48.

Hagtvedt, H., & Brasel, S. A. (2017). Color saturation increases perceived product size. *Journal of Consumer Research, 44*(2), 396–413.

Hakala, U., Lätti, S., & Sandberg, B. (2011). Operationalising brand heritage and cultural heritage. *Journal of Product & Brand Management*, *20*(6), 447-456.

Hayes, A.F. (2017). I*ntroduction to mediation, moderation, and conditional process analysis: A regression-based approach.* 2nd edition.

Heath, T. B., DelVecchio, D., & McCarthy, M. S. (2011). The asymmetric effects of extending brands to lower and higher quality. *Journal of Marketing*, *75*(4), 3-20.

Henderson, P. W., Giese, J. L., & Cote, J. A. (2004). Impression management using typeface design. *Journal of marketing*, *68*(4), 60-72.

Hennigs, N., Wiedmann, K.-P., Behrens, S., & Klarmann, C. (2013). Unleashing the power of luxury: Antecedents of luxury brand perception and effects on luxury brand strength. J*ournal of Brand Management*, 20, 705-715. doi:10.1057/bm.2013.11

Ho, S. C. H., Yeh, Y. J. Y., & Lin, T. M. (2022). Effects of luxury perceptions on purchase intention of high-tech products. *Journal of International Consumer Marketing*, *34*(2), 168-183.

Holbrook, M. B. (1993). Nostalgia and consumption preferences: Some emerging patterns of consumer tastes. *Journal of Consumer Research, 20(2)*, 245.

HommeModel. (2018). *Campaign: Givenchy SS18* [Photograph]. Hommemodel. https://hommemodel.blogspot.com/2018/04/campaign-givenchy-ss18.html

Horcajo, J., Briñol, P., & Petty, R. E. (2010). Consumer persuasion: Indirect change and implicit balance. *Psychology & Marketing, 27*, 938–963.

Hoyer, W. D., Leone, R. P., & Cobb, C. J. (1986). The effect of color versus black and white advertising formats on affective ratings and perceptions of product quality. *ACR North American Advances*.

Huaman-Ramirez, R., Maaninou, N., Merunka, D., & Cova, V. (2021). How do consumers perceive old brands? Measurement and consequences of brand oldness associations. *European Business Review*, *33*(4), 566-596.

Hudson, B. T., & Balmer, J. M. (2013). Corporate heritage brands: Mead's theory of the past. *Corporate Communications: An International Journal*, *18*(3), 347-361.

Husic, M., & Cicic, M. (2009). Luxury consumption factors. *Journal of Fashion Marketing and Management, 13*, 231-245. https://doi.org/10.1108/13612020910957734

Javornik, A., Duffy, K., Rokka, J., Scholz, J., Nobbs, K., Motala, A., & Goldenberg, A. (2021). Strategic approaches to augmented reality deployment by luxury brands, *Journal of Business Research, 136*, 284-292.

Jeong, H. (2023). *Luxury Goods Market Report 2023.* Statista. Retrieved May 11, 2023, from https://www.statista.com/study/55494/luxury-goods-report/

Jin, N., Lee, S., & Jun, J. H. (2015). The role of brand credibility in predicting consumers' behavioural intentions in luxury restaurants. *Anatolia, 26*(3), 384-396.

Labrecque, L. I., & Milne, G. R. (2012). Exciting red and competent blue: the importance of color in marketing. *Journal of the Academy of Marketing Science, 40*(5), 711-727.

Labrecque, L. I., Patrick, V. M., & Milne, G. R. (2013). The marketers' prismatic palette: A review of color research and future directions. *Psychology and Marketing, 30*(2), 187–202. Wiley Periodicals, Inc. DOI: 10.1002/mar.20597

Lafferty, B. A., & Goldsmith, R. E. (1999). Corporate credibility's role in consumers' attitudes and purchase intentions when a high versus a low credibility endorser is used in the ad. *Journal of business research*, *44*(2), 109-116.

Lavidge, R. J., & Steiner, G.A. (1961). A model for predictive measurements of advertising effectiveness. *Journal of Marketing, 25* (October), 59-62.

Lee, H., Deng, X., Unnava, H. R., & Fujita, K. (2014). Monochrome forests and colorful trees: The effect of black-and-white versus color imagery on construal level. *Journal of Consumer Research, 41*(4), 1015-1032. https://doi.org/10.1086/678392

Lee, H., Fujita, K., Deng, X., & Unnava, H. R. (2017). The role of temporal distance on the color of future-directed imagery: A construal-level perspective. *Journal of Consumer Research, 43*(5), 707-725. DOI: 10.1093/jcr/ucw051

Liberman, N., Trope, Y., & Wakslak, C. (2007). Construal level theory and consumer behavior. *Journal of Consumer Psychology, 17*(2), 113-117.

Lightfoot, C., & Gerstman, R. (1998). *Brand packaging.* In Susannah Hart & John Murphy (Eds.), Brands: The new wealth creators (pp. 46–55). New York, NY: New York University.

Lohse, G. L., & Rosen, D. (2001). Signaling quality and credibility in yellow pages advertising: The influence of color and graphics on choice. *Journal of Advertising, 30*, 73–85.

Lowe, D. G. (1984). *Perceptual Organization and Visual Recognition*, Boston: Kluwer-Nijhooff.

Kane, G. C., & Pear, A. (2016). *The rise of visual content online.* MIT Sloan Management Review.

Kapferer, J. N. (1997). Managing luxury brands. *Journal of Brand Management, 4*(4), 251-259.

Kapferer, J. N. (2012). Abundant rarity: The key to luxury growth. *Business Horizons*, *55*(5), 453-462.

Kapferer, J. N., & Bastien, V. (2012). *The luxury strategy: Break the rules of marketing to build luxury brands.* Kogan page publishers.

Kapferer, J.-N., & Bastien, V. (2009). The specificity of luxury management: Turning marketing upside down. *Journal of Brand Management, 16*, 311–322. https://doi.org/10.1057/bm.2008.51

Kapferer, J. N., & Valette-Florence, P. (2016). Beyond rarity: the paths of luxury desire. How luxury brands grow yet remain desirable. *Journal of Product & Brand Management*, *25*(2), 120-133.

Keller, K. L. (2009). Building strong brands in a modern marketing communications environment. *Journal of Marketing Communications, 15*(2–3), 139–155. https://doi.org/10.1080/13527260902757530

Keller, K. L., & Lehmann, D. R. (2006). Brands and branding: Research findings and future priorities. *Marketing science*, *25*(6), 740-759.

Kim, J. E., Lloyd, S., Adebeshin, K., & Kang, J. Y. M. (2019). Decoding fashion advertising symbolism in masstige and luxury brands. *Journal of Fashion Marketing and Management: An International Journal*, *23*(2), 277-295.

Kirmani, A., & Rao, A. R. (2000). No pain, no gain: A critical review of the literature on signaling unobservable product quality. *Journal of marketing*, *64*(2), 66-79.

Koffka, K. (2013). *Principles of gestalt psychology.* Routledge.

MacInnis, D. J., & Jaworski, B. J. (1989). Information processing from advertisement: Toward an integrative framework. *Journal of Marketing, 53*, 1-23.

Mahnke, F. H. (1996). *Color, environment, and human response.* New York: Reinhold.

Malhotra, N. K., & Dash, S. J. M. R. (2010). An applied orientation. *Marketing Research*, *2*.

Mapelli, D., & Behrmann, M. (1997). The role of color in object recognition: Evidence from visual agnosia. *Neurocase*, *3*(4), 237-247.

Martino, V., & Lovari, A. (2016). When the past makes news: cultivating media relations through brand heritage. *Public Relations Review, 42*(4), 539-547.

Mehta, R., & Zhu, R. J. (2009). Red or blue? Exploring the effects of color on cognitive task performances. *Science, 323* (February), 1226–1229.

Meier, B. P., Robinson, M. D., & Clore, G. L. (2004). Why good guys wear white: Automatic inferences about stimulus valence based on brightness. *Psychological Science, 15*, 82–87. https://doi.org/10.1111/j.0963‑7214.2004.01502002.x

Merchant, A., Latour, K., Ford, J. B., & Latour, M. S. (2013). How strong is the pull of the past?: Measuring personal nostalgia evoked by advertising. *Journal of Advertising Research*, *53*(2), 150-165.

Merchant, A., & Rose, G. M. (2013). Effects of advertising-evoked vicarious nostalgia on brand heritage. *Journal of business research*, *66*(12), 2619-2625.

Meyers-Levy, J., & Peracchio, L. A. (1995). Understanding the effects of color: How the correspondence between available and required resources affects attitudes. *Journal of Consumer Research, 22*(2), 121.

Meyers-Levy, J., & Zhu, R. J. (2010). Gender differences in the meanings consumers infer from music and other aesthetic stimuli. *Journal of Consumer Psychology, 20*, 495–507.

Morhart, F., Malär, L., Guèvremont, A., Girardin, F., & Grohmann, B. (2015). Brand authenticity: An integrative framework and measurement scale. *Journal of Consumer Psychology, 25*(2), 200–218.

Moss, J. (2019). *70 years of Dior, captured by Peter Lindberg on the streets of New York* [Photograph]. Anothermag. https://www.anothermag.com/fashion-beauty/12077/70-years-of-dior-by-peter-lindbergh-on-new-york-streets-taschen

Moulard, J. G., Raggio, R. D., & Folse, J. A. G. (2016). Brand authenticity: Testing the antecedents and outcomes of brand management's passion for its products. *Psychology & marketing*, *33*(6), 421-436.

Odbert, H. S., Karwoski, T. F., & Eckerson, A. B. (1942). Studies in synesthetic thinking: 1. Musical and verbal associations of color and mood. *Journal of General Psychology, 26*, 153–173.

Orth, U. R., & Gal, S. (2012). Nostalgic brands as mood boosters. *Journal of Brand Management, 19*(8), 666–679. https://doi.org/10.1057/bm.2012.1

Orth, U., Rose, G., & Merchant, A. (2019). Preservation, rejuvenation, or confusion? Changing package designs for heritage brands. *Psychology & Marketing, 36*(9), 831-843.

Page, C., & Herr, P. M. (2002). An investigation of the processes by which product design and brand strength interact to determine initial affect and quality judgments. *Journal of Consumer Psychology, 12*, 133–147.

Park, M., Im, H., & Kim, H. Y. (2020). “You are too friendly!” The negative effects of social media marketing on value perceptions of luxury fashion brands. *Journal of Business Research, 117*, 529-542.

Patwardhan, H., & Balasubramanian, S. K. (2011). Brand romance: a complementary approach to explain emotional attachment toward brands. *Journal of Product & Brand Management*.

Pecot, F., & De Barnier, V. (2017). Brand heritage: The past in the service of brand management. *Recherche et applications en marketing (English Edition)*, *32*(4), 72-90.

Pecot, F., Merchant, A., Valette-Florence, P., & De Barnier, V. (2018). Cognitive outcomes of brand heritage: A signaling perspective. *Journal of Business Research*, *85*, 304-316.

Pecot, F., Valette-Florence, P., & De Barnier, V. (2019). Brand heritage as a temporal perception: conceptualisation, measure and consequences. *Journal of Marketing Management*, *35*(17-18), 1624-1643.

Peracchio, L. A., & Meyers-Levy, J. (2005). Using stylistic properties of ad pictures to communicate with consumers. *Journal of Consumer Research, 32*(1), 29–40. https://doi.org/10.1086/429599

Pfannes, C., Meyer, C., Orth, U., & Rose, G. (2021). Brand narratives: content and consequences among heritage brands. *Psychology & Marketing,* (online first).

Phau, I., & Prendergast, G. (2000). Consuming luxury brands: the relevance of the 'rarity principle'. *Journal of brand Management*, *8*, 122-138.

Prada Group. (2020). *"A Stranger Calls": Prada Holiday 2020 Campaign* [Photograph]. Prada Group. https://www.pradagroup.com/en/news-media/news-section/prada-holiday-2020-campaign-a-stranger-calls.html

Pontes, N., Palmeira, M., & Jevons, C. (2017). Brand expertise and perceived consistency reversals on vertical line extensions: The moderating role of extension direction. *Journal of Retailing and Consumer Services*, *34*, 209-218.

Rios, A. E. (2016). The impact of the digital revolution in the development of market and communication strategies for the luxury sector (fashion luxury). *Central European Business Review, 5*(2), 17-36.

Rose, G. M., Merchant, A., Orth, U. R., & Horstmann, F. (2016). Emphasizing brand heritage: Does it work? And how?. *Journal of Business Research*, *69*(2), 936-943.

Rose, M., Rose, G., & Merchant, A. (2017). Is old gold? How heritage 'sells' the university to prospective students. The impact of a measure of brand heritage on attitudes toward the university. *Journal of Advertising Research, 57*(3), 335-351.

Sample, K. L., Hagtvedt, H., & Brasel, S. A. (2019). Components of visual perception in marketing contexts: a conceptual framework and review. *Journal of the Academy of Marketing Science, 48*, 405-421. https://doi.org/10.1007/s11747-019-00684-4

Saunders, M., Lewis, P., & Thornhill, A. (2003). Research methods for business students. *Essex: Prentice Hall: Financial Times*.

Schindler, P. S. (1986). Color and contrast in magazine advertising. *Psychology & Marketing, 3*, 69–78.

Schindler, R. M., & Holbrook, M. B. (2003). Nostalgia for early experience as a determinant of consumer preferences. *Psychology & Marketing, 20*(4), 275–302.

Schmitt, B. H. (1999). Experiential Marketing. *Journal of Marketing Management*, 15, 53-67. http://dx.doi.org/10.1362/026725799784870496

Schmitt, B. H., & Simonson, A. (1997). *Marketing aesthetics: The strategic management of brands, identity and image.* New York, NY: Free Press.

Sekuler, R., & Blake, R. (2002). *Perception*. Boston: McGraw-Hill.

Sharp, B., & Dawes, J. (2001). What is differentiation and how does it work ? *Journal of Marketing Management, 17*(7-8), 739-759. Taylor & Francis Online. https://doi.org/10.1362/026725701323366809

Singh, S. (2006). Impact of color on marketing. *Management Decision, 44*(6), 783-789. Emerald Group Publishing Limited. 10.1108/00251740610673332

STATA. (2010, January 11). Stata. Retrieved June 22, 2023, from https://www.stata.com/manuals/rswilk.pdf

STATA. (2015, September 15). Postestimation tools for regress. Stata. Retrieved June 22, 2023, from https://www.stata.com/manuals13/rregresspostestimation.pdf

Steenkamp, J. E. M., & Baumgartner, H. (1992). The role of optimum stimulation level in exploratory consumer behavior. *Journal of Consumer Research, 19*(3), 434.

Stillman, P., Lee, H., Deng, X., Unnava, H. R., & Fujita, K. (2020). Examining consumers' sensory experiences with color: A consumer neuroscience approach. *Psychology & Marketing*, *37*(7), 995-1007.

Strong, E. K. Jr. (1925). Theories of Selling. *The Journal of Applied Psychology,* 75-86.

Sung, Y., Choi, S. M., Ahn, H., & Song, Y. A. (2015). Dimensions of luxury brand personality: Scale development and validation. *Psychology & Marketing*, *32*(1), 121-132.

Sweeney, J., & Swait, J. (2008). The effects of brand credibility on customer loyalty. *Journal of retailing and consumer services*, *15*(3), 179-193.

Testa, P., Cova, B., & Cantone, L. (2017). The process of de-iconisation of an iconic brand: A genealogical approach. *Journal of Marketing Management, 33*(17–18), 1490–1521.

The Fashionography. (2020). *Lily-Rose Depp for Chanel Cruise 2021* [Photograph]. The Fashionography. https://thefashionography.com/fashion-campaigns/lily-rose-depp-chanel-cruise-2021/

Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological review, 117*(2), 440.

Tynan, C., McKechnie, S., & Chhuon, C. (2010). Co-creating value for luxury brands. *Journal of Business Research, 63*(11), 1156–1163.

Urde, M., Greyser, S. A., & Balmer, J. M. T. (2007). Corporate brands with a heritage. *Journal of Brand Management, 15*(1), 4–19.

Vakratsas, D., & Ambler, T. (1999). How advertising works: what do we really know? *Journal of Marketing, 63*(1), 26-43. JSTOR. https://doi.org/10.2307/1251999

Valdez, P., & Mehrabian, A. (1994). Effects of Color on Emotions. *Journal of Experimental Psychology: General, 123*(4), 394.

Vickers, J., & Renand, F. (2003). The marketing of luxury goods: An exploratory study – three conceptual dimensions. T*he Marketing Review, 3*, 459–478. https://doi.org/10.1362/146934703771910071

Vigneron, F., & Johnson, L.W. (1999). A review and conceptual framework of prestige seeking consumer behavior. *Academy of Marketing Science Review, 1,* 1-15.

Vigneron, F., & Johnson, L. W. (2004). Measuring perceptions of brand luxury. *Journal of brand management*, *11*(6), 484-506.

Wang, Y., Wang, T., Mu, W., & Sun, Y. (2022). What is the glamor of black‐and‐white? The effect of color design on evaluations of luxury brand ads. *Journal of Consumer Behaviour*, *21*(5), 973-986.

Wang, D., & Yamashita, Y. (2018). The luxury watches as double-storied symbol system: Brand historicity in Ahistorical China. *Hitotsubashi Journal of commerce and management*, *52*(1 (52), 7-20.

Wang, X., & Yang, Z. (2010). The effect of brand credibility on consumers' brand purchase intention in emerging economies: The moderating role of brand awareness and brand image. *Journal of global marketing*, *23*(3), 177-188.

Warlop, L., Ratneshwar, S., & Van Osselaer, S. M. (2005). Distinctive brand cues and memory for product consumption experiences. *International Journal of Research in Marketing*, *22*(1), 27-44.

Wernerfelt, B. (1988). Umbrella branding as a signal of new product quality: An example of signalling by posting a bond. *The RAND Journal of Economics,* 458-466.

Wexner, L. B. (1954). The degree to which colors (hues) are associated with mood-tones. *Journal of Applied Psychology, 38*(6), 432–435.

Wiedmann, K. P., Hennigs, N., & Siebels, A. (2009). Value-based segmentation of luxury consumption behavior. *Psychology and Marketing, 26*(7), 625-651.

Wright, A. (1988). *The beginner's guide to colour psychology.* London: Colour Affects Ltd.

Wu, A. D., & Zumbo, B. D. (2008). Understanding and using mediators and moderators. *Social Indicators Research, 87*(3), 367-392. https://doi.org/10.1007/s11205-007-9143-1

Zeltner, P. M. (1975). *John Dewey's aesthetic philosophy.* Amsterdam, The Netherlands: John Benjamins Publishing Company.

Zeren, D., & Kara, A. (2020). Effects of brand heritage on intentions to buy of airline services: The mediating roles of brand trust and brand loyalty. *Sustainability*, *13*(1), 303.

Zettl, H. (2013). *Sight, sound, motion: Applied media aesthetics.* Cengage Learning

Zhang, J., & Bloemer, J.M. (2008) The impact of value congruence on consumer-service brand relationships. *Journal of Service Research, 11*(2), 161–178.

Zhang, C., Kashmiri, S., & Cinelli, M. (2019). How does brand age influence consumer attitudes toward a firm's unethical behavior?. *Journal of Business Ethics*, *158*, 699-711.

10. Appendices

Appendix A

Figure A.1. *70 Years of Dior*

Note. From *70 Years of Dior, Captured By Peter Lindberg on the Streets of New York* [Photograph], by J. Moss, 2019.

Figure A.2. *"A Stranger Calls"*

Note. From Prada Holiday 2020 Campaign, *Captured by Steven Meisel* [Photograph], by Prada Group, 2020.

Figure A.3. *Campaign: Givenchy SS18*

Note. From Givenchy's Teaser Campaign for the Debut Collection by Clare Waight Keller, *Captured by Steven Meisel*, [Photograph], by HommeModel, 2018.

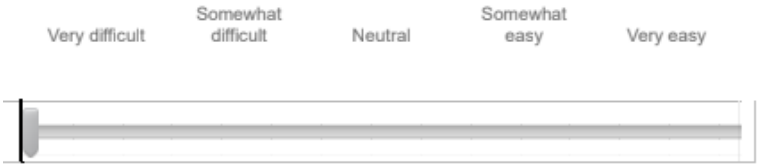
Figure A.4. *Lily-Rose Depp for Chanel Cruise 2021*

Note. From Lily-Rose Depp for Chanel Cruise 2021, *Captured by Karim Sadli*, [Photograph], by The Fashionography, 2020.

Appendix B

Figure B.1. *Questionnaire*

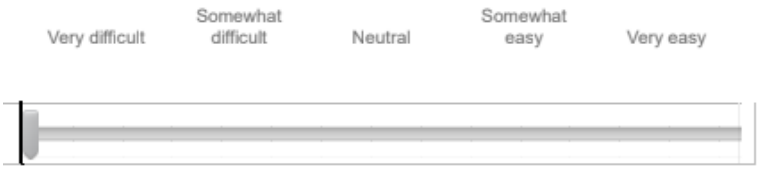
Block	***Measurement***
Introduction & Consent Form	Hi! This survey is a part of the Master thesis research conducted for BI Norwegian Business School. The purpose of this study is to investigate how ads influence customer brand perceptions. The survey will take approximately 4 minutes. Your responses will be confidential, and we do not collect identifying information such as your name, email address, or IP address. We will only use your data confidentially and in accordance with data protection legislation (the General Data Protection and Personal Data Act). If you have any questions about the research study, please contact the MSc. students responsible for this research, Ms. Nevis Veli (s2111686@bi.no) or Ms. Nataliia Savochkina (s2111364@bi.no). ELECTRONIC CONSENT: Please select your choice below. Clicking on the ‘Agree’ button below indicates that: ● You have read the above information. ● You voluntarily agree to participate. ● You are at least 18 years of age. If you do not wish to participate in this study, please decline participation by clicking on the ‘disagree’ button.
	Scale: 0-1 (Disagree/Agree)
Condition 1	You will now read a short text about the importance of heritage for brands. Please read it carefully as you will be asked questions about it later. TEXT: Successful brands cherish their heritage. It defines their identity, culture, and values. Brands can use it to tell their story and connect with customers on a deep emotional level. To that purpose, heritage is often communicated through the brand name, product attributes, advertising, color pattern, logo, and package design. Thus, brand heritage provides a unique selling proposition that cannot be replicated by competitors. In addition, a brand's heritage can help companies avoid repeating mistakes of the past,

	contributing to their experience and expertise in the field. As a result, a brand's heritage is not just a record of the past; it is a powerful tool for shaping the future. ***Q1.*** How interesting did you find the text?  ***Q2.*** How easy to read was the text?  You will now see an advertisement for a consumer brand. Please take the time to look at the advertisement, as it will only be available to you once. You will then need to answer questions related to your impressions of the brand. After clicking 'next,' you cannot return to the previous questions. 
Condition 2	You will now read a short text about the importance of heritage for brands. Please read it carefully as you will be asked questions about it later. TEXT: Successful brands cherish their heritage. It defines their identity, culture, and values. Brands can use it to tell their story and connect with customers on a deep emotional

level. To that purpose, heritage is often communicated through the brand name, product attributes, advertising, color pattern, logo, and package design. Thus, brand heritage provides a unique selling proposition that cannot be replicated by competitors. In addition, a brand's heritage can help companies avoid repeating mistakes of the past, contributing to their experience and expertise in the field. As a result, a brand's heritage is not just a record of the past; it is a powerful tool for shaping the future.

Q1. How interesting did you find the text?

Q2. How easy to read was the text?



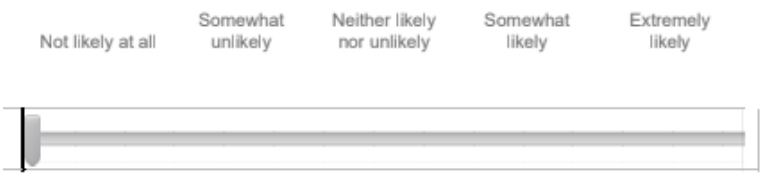
You will now see an advertisement for a consumer brand. Please take the time to look at the advertisement, as it will only be available to you once. You will then need to answer questions related to your impressions of the brand.

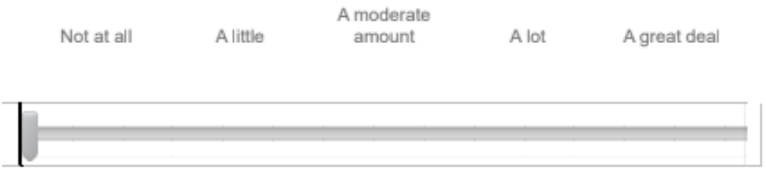
After clicking ‘next,’ you cannot return to the previous questions.

Condition 3	You will now see an advertisement for a consumer brand. Please take the time to look at the advertisement, as it will only be available to you once. You will then need to answer questions related to your impressions of the brand. After clicking 'next,' you cannot return to the previous questions. 
Condition 4	You will now see an advertisement for a consumer brand. Please take the time to look at the advertisement, as it will only be available to you once. You will then need to answer questions related to your impressions of the brand. After clicking 'next,' you cannot return to the previous questions. 

Variables	***Dimensions***	***Main Questions***
Brand luxury perception	*Conspicuousness*	***Q3.*** To what extent do you agree with the following statements? ● This is a conspicuous brand. ● This is an elitist brand. ● This is an extremely expensive brand. ● This is a brand for wealthy people.
		Scale: 1-5 (Strongly disagree – Strongly agree)
	Uniqueness	***Q4.*** To what extent do you agree with the following statements? ● This is a very exclusive brand. ● This is a precious brand. ● This is a rare brand. ● This is a unique brand.
		Scale: 1-5 (Strongly disagree – Strongly agree)
	Quality	***Q5.*** To what extent do you agree with the following statements? ● This is a brand that produces hand-made products. ● This is a luxurious brand. ● This is a best quality brand. ● This is a sophisticated brand. ● This is a superior brand.
		Scale: 1-5 (Strongly disagree – Strongly agree)
	Hedonism	***Q6.*** To what extent do you agree with the following statements? ● This is an exquisite brand. ● This is a glamorous brand. ● This is a stunning brand.

		Scale: 1-5 (Strongly disagree – Strongly agree)
	Extended self	***Q7.*** To what extent do you agree with the following statements? ● This is a leading brand. ● This is a very powerful brand. ● This is a rewarding brand. ● This is a successful brand.
		Scale: 1-5 (Strongly disagree – Strongly agree)
Brand Expertise Perception	*Perceived capability*	***Q8.*** To what extent do you agree with the following statements? ● This brand will meet my expectations. ● I feel confidence in this brand. ● This brand will not disappoint me. ● Please select 'strongly disagree'. ● This brand guarantees satisfaction. ● This is a capable brand.
		Scale: 1-5 (Strongly disagree – Strongly agree)
	Competence	***Q9.*** To what extent do you agree with the following statements? ● This is a reliable brand. ● This is a responsible brand. ● This is a dependable brand. ● This is an efficient brand. ● This is a competent brand.
		Scale: 1-5 (Strongly disagree – Strongly agree)
Brand Heritage Salience	*Stability*	***Q10.*** To what extent do you agree with the following statements? ● This brand will never go out of fashion.

		• This brand is very continuous. • This is a timeless brand.
		Scale: 1-5 (Strongly disagree – Strongly agree)
	Longevity	***Q11.*** To what extent do you agree with the following statements? • This is a brand that won't disappear tomorrow. • This brand exudes a sense of tradition. • This brand reinforces and builds on long-held traditions. • This is a brand with roots. • This brand has a strong link to the past.
		Scale: 1-5 (Strongly disagree – Strongly agree)
	Adaptability	***Q12.*** To what extent do you agree with the following statements? • This brand knows how to reinvent itself. • This is a brand that renews itself.
		Scale: 1-5 (Strongly disagree – Strongly agree)
Purchase Intent		***Q13.*** According to what you know or believe about the advertised brand, how likely would you be to purchase from it? 
Self-reported Beliefs		***Q14.*** In general, do you believe that a brand's heritage influences whether the brand is an expert in the field?
		Scale: 0-1 (No/Yes)

	Q15. To what extent do you believe that a brand's heritage influences whether the brand is an expert? 
Demographics	***Q16.*** *What is your gender?* ● Male ● Female ● Other ● Prefer not to answer
	Q17. *What is your age?* ● Below 18 ● 18-24 ● 25-34 ● 35-44 ● 45-54 ● 55+
	Q18. Which of the following best describes your household's annual income (after taxes) last year? ● $0 - $19,999 ● $20,000 - $39,999 ● $40,000 - $59,999 ● $60,000 - $79,999 ● $80,000 - $99,999 ● $100,000+ ● Prefer not to answer.
	Q19. Which race or ethnicity best describes you? ● American Indian or Alaskan Native ● Asian / Pacific Islander ● Black or African American ● Hispanic ● White / Caucasian ● Multiple ethnicity / Other (please specify) ● Prefer not to answer.
Color Blindness	***Q20.*** Would you describe yourself as colorblind?
	Scale: 0-1 (No/Yes)

Appendix C

Balance Checks

Table C1. *Two-Sample T-Test with Equal Variances, Gender by Ad_Design*

Two-sample t test with equal variances

Group	Obs	Mean	Std. err.	Std. dev.	[95% conf.	interval]
0	76	1.552632	.0574143	.500526	1.438256	1.667007
1	70	1.685714	.069135	.5784251	1.547794	1.823635
Combined	146	1.616438	.0448166	.5415212	1.52786	1.705017
diff		-.1330827	.0893342		-.3096585	.043493

diff = mean(0) - mean(1) t = -1.4897
H0: diff = 0 Degrees of freedom = 144

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.0692 Pr(|T| > |t|) = 0.1385 Pr(T > t) = 0.9308

Table C2. *Two-Sample T-Test with Equal Variances, Age by Ad_Design*

Two-sample t test with equal variances

Group	Obs	Mean	Std. err.	Std. dev.	[95% conf.	interval]
0	76	3.013158	.1249469	1.089262	2.764251	3.262065
1	70	2.842857	.1281105	1.071849	2.587284	3.098431
Combined	146	2.931507	.0894309	1.080597	2.75475	3.108263
diff		.1703008	.179072		-.1836484	.5242499

diff = mean(0) - mean(1) t = 0.9510
H0: diff = 0 Degrees of freedom = 144

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.8284 Pr(|T| > |t|) = 0.3432 Pr(T > t) = 0.1716

Table C3. *Two-Sample T-Test with Equal Variances, Income by Ad_Design*

Two-sample t test with equal variances

Group	Obs	Mean	Std. err.	Std. dev.	[95% conf.	interval]
0	76	3.223684	.2381203	2.075885	2.749324	3.698044
1	70	3.028571	.2549481	2.133049	2.519964	3.537179
Combined	146	3.130137	.1736718	2.098485	2.786882	3.473392
diff		.1951128	.3484632		-.4936508	.8838764

diff = mean(0) - mean(1) t = 0.5599
H0: diff = 0 Degrees of freedom = 144

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.7118 Pr(|T| > |t|) = 0.5764 Pr(T > t) = 0.2882

Table C4. *Two-Sample T-Test with Equal Variances, Ethnicity by Ad_Design*

Two-sample t test with equal variances

Group	Obs	Mean	Std. err.	Std. dev.	[95% conf.	interval]
0	76	4.947368	.1168216	1.018427	4.714648	5.180089
1	70	5.057143	.0951967	.7964726	4.867231	5.247055
Combined	146	5	.0759136	.9172673	4.84996	5.15004
diff		-.1097744	.1522076		-.4106242	.1910753

diff = mean(0) - mean(1) t = -0.7212
H0: diff = 0 Degrees of freedom = 144

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.2360 Pr(|T| > |t|) = 0.4719 Pr(T > t) = 0.7640

Table C5. *Two-Sample T-Test with Equal Variances, Gender by Priming*

Two-sample t test with equal variances

Group	Obs	Mean	Std. err.	Std. dev.	[95% conf.	interval]
0	73	1.506849	.0620652	.5302852	1.383125	1.630574
1	73	1.726027	.0624837	.533861	1.601468	1.850586
Combined	146	1.616438	.0448166	.5415212	1.52786	1.705017
diff		-.2191781	.0880699		-.3932548	-.0451014

diff = mean(0) - mean(1) t = -2.4887
H0: diff = 0 Degrees of freedom = 144

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.0070 Pr(|T| > |t|) = 0.0140 Pr(T > t) = 0.9930

Table C6. *Two-Sample T-Test with Equal Variances, Age by Priming*

Two-sample t test with equal variances

Group	Obs	Mean	Std. err.	Std. dev.	[95% conf.	interval]
0	73	2.972603	.1392694	1.189918	2.694974	3.250231
1	73	2.890411	.1130079	.9655402	2.665134	3.115688
Combined	146	2.931507	.0894309	1.080597	2.75475	3.108263
diff		.0821918	.1793509		-.2723088	.4366924

diff = mean(0) - mean(1) t = 0.4583
H0: diff = 0 Degrees of freedom = 144

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.6763 Pr(|T| > |t|) = 0.6474 Pr(T > t) = 0.3237

Table C7. *Two-Sample T-Test with Equal Variances, Income by Priming*

Two-sample t test with equal variances

Group	Obs	Mean	Std. err.	Std. dev.	[95% conf.	interval]
0	73	3.136986	.2485231	2.123382	2.641565	3.632408
1	73	3.123288	.2443776	2.087963	2.63613	3.610445
Combined	146	3.130137	.1736718	2.098485	2.786882	3.473392
diff		.0136986	.3485457		-.6752282	.7026254

diff = mean(0) - mean(1) t = 0.0393
H0: diff = 0 Degrees of freedom = 144

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.5156 Pr(|T| > |t|) = 0.9687 Pr(T > t) = 0.4844

Table C8. *Two-Sample T-Test with Equal Variances, Ethnicity by Priming*

Two-sample t test with equal variances

Group	Obs	Mean	Std. err.	Std. dev.	[95% conf.	interval]
0	73	4.931507	.1000927	.8551928	4.731976	5.131038
1	73	5.068493	.1142922	.9765126	4.840656	5.29633
Combined	146	5	.0759136	.9172673	4.84996	5.15004
diff		-.1369863	.1519252		-.4372778	.1633052

diff = mean(0) - mean(1) t = -0.9017
H0: diff = 0 Degrees of freedom = 144

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = 0.1844 Pr(|T| > |t|) = 0.3687 Pr(T > t) = 0.8156

Table C9. *One-Way ANOVA Testing for Between Groups Differences in Mean Gender*

Condition	Summary of gender Mean	Std. dev.	Freq.
1	1.7941176	.59183391	34
2	1.6666667	.47756693	39
3	1.5833333	.55420471	36
4	1.4444444	.50395263	36
Total	1.6206897	.5409478	145

Analysis of variance

Source	SS	df	MS	F	Prob > F
Between groups	2.27355195	3	.75785065	2.68	0.0493
Within groups	39.8643791	141	.282726093		
Total	42.137931	144	.292624521		

Bartlett's equal-variances test: chi2(3) = 1.9265 Prob>chi2 = 0.588

Table C10. *One-Way ANOVA Testing for Between Groups Differences in Mean Age*

Condition	Summary of age Mean	Std. dev.	Freq.
1	2.8529412	.92547622	34
2	2.9230769	1.0100707	39
3	2.8333333	1.2071217	36
4	3.0833333	1.1801937	36
Total	2.9241379	1.0806554	145

Analysis of variance

Source	SS	df	MS	F	Prob > F
Between groups	1.38158059	3	.460526863	0.39	0.7609
Within groups	166.783937	141	1.1828648		
Total	168.165517	144	1.16781609		

Bartlett's equal-variances test: chi2(3) = 3.2170 Prob>chi2 = 0.359

Table C11. *One-Way ANOVA Testing for Between Groups Differences in Mean Income*

Condition	Summary of income Mean	Std. dev.	Freq.
1	3.0294118	2.1530147	34
2	3.2051282	2.0542573	39
3	3.0277778	2.144576	36
4	3.1388889	2.0584707	36
Total	3.1034483	2.0807455	145

Analysis of variance

Source	SS	df	MS	F	Prob > F
Between groups	.84093549	3	.28031183	0.06	0.9790
Within groups	622.60734	141	4.4156549		
Total	623.448276	144	4.32950192		

Bartlett's equal-variances test: chi2(3) = 0.1352 Prob>chi2 = 0.987

Table C12. *One-Way ANOVA Testing for Between Groups Differences in Mean Ethnicity*

Condition	Summary of ethnicity Mean	Std. dev.	Freq.
1	5.0294118	.83431315	34
2	5.1025641	1.0953219	39
3	5.0833333	.76997217	36
4	4.7777778	.92924274	36
Total	5	.92044675	145

Analysis of variance

Source	SS	df	MS	F	Prob > F
Between groups	2.46744595	3	.822481984	0.97	0.4087
Within groups	119.532554	141	.84774861		
Total	122	144	.847222222		

Bartlett's equal-variances test: chi2(3) = 5.1212 Prob>chi2 = 0.163

Table C13. *Pairwise Comparisons of Means with Equal Variances (Tukey test)*

Pairwise comparisons of means with equal variances

Over: Condition

	Number of comparisons
Condition	6

gender	Contrast	Std. err.	Tukey t	Tukey P>|t|	Tukey [95% conf.	interval]
Condition						
2 vs 1	-.127451	.1247592	-1.02	0.737	-.4518167	.1969147
3 vs 1	-.2107843	.1271573	-1.66	0.350	-.5413848	.1198162
4 vs 1	-.3496732	.1271573	-2.75	0.034	-.6802737	-.0190727
3 vs 2	-.0833333	.1228938	-0.68	0.905	-.4028491	.2361824
4 vs 2	-.2222222	.1228938	-1.81	0.274	-.541738	.0972936
4 vs 3	-.1388889	.1253276	-1.11	0.685	-.4647323	.1869545

Table C14. *Chi-Squared Test: Gender*

Key
frequency *column percentage*

gender	Condition 1	2	3	4	Total
1	9 26.47	13 33.33	16 44.44	20 55.56	58 40.00
2	24 70.59	26 66.67	19 52.78	16 44.44	85 58.62
3	0 0.00	0 0.00	1 2.78	0 0.00	1 0.69
4	1 2.94	0 0.00	0 0.00	0 0.00	1 0.69
Total	34 100.00	39 100.00	36 100.00	36 100.00	145 100.00

Pearson chi2(9) = 13.3425 Pr = 0.148

Table C15. *Chi-Squared Test: Age*

Key
frequency *column percentage*

age	Condition 1	2	3	4	Total
2	14 41.18	17 43.59	20 55.56	14 38.89	65 44.83
3	14 41.18	12 30.77	9 25.00	13 36.11	48 33.10
4	3 8.82	6 15.38	2 5.56	2 5.56	13 8.97
5	3 8.82	4 10.26	3 8.33	6 16.67	16 11.03
6	0 0.00	0 0.00	2 5.56	1 2.78	3 2.07
Total	34 100.00	39 100.00	36 100.00	36 100.00	145 100.00

Pearson chi2(12) = 10.7529 Pr = 0.550

Table C16. *Chi-Squared Test: Income*

Key
frequency *column percentage*

income	Condition 1	2	3	4	Total
1	11 32.35	11 28.21	13 36.11	9 24.32	44 30.14
2	8 23.53	6 15.38	7 19.44	10 27.03	31 21.23
3	3 8.82	8 20.51	3 8.33	5 13.51	19 13.01
4	4 11.76	4 10.26	3 8.33	2 5.41	13 8.90
5	2 5.88	2 5.13	1 2.78	2 5.41	7 4.79
6	1 2.94	4 10.26	7 19.44	5 13.51	17 11.64
7	5 14.71	4 10.26	2 5.56	4 10.81	15 10.27
Total	34 100.00	39 100.00	36 100.00	37 100.00	146 100.00

Pearson chi2(18) = 12.1043 Pr = 0.842

Table C17. *Chi-Squared Test: Ethnicity*

Key
frequency *column percentage*

ethnicity	Condition 1	2	3	4	Total
2	1 2.94	2 5.13	1 2.78	3 8.33	7 4.83
4	2 5.88	3 7.69	0 0.00	1 2.78	6 4.14
5	28 82.35	27 69.23	32 88.89	31 86.11	118 81.38
6	0 0.00	1 2.56	0 0.00	0 0.00	1 0.69
7	3 8.82	6 15.38	3 8.33	1 2.78	13 8.97
Total	34 100.00	39 100.00	36 100.00	36 100.00	145 100.00

Pearson chi2(12) = 11.7035 Pr = 0.470

Table C18. *Fisher's Exact Test: Gender*

```
Enumerating sample-space combinations:
stage 4:  enumerations = 1
stage 3:  enumerations = 40
stage 2:  enumerations = 675
stage 1:  enumerations = 0
```

gender	Condition 1	2	3	4	Total
1	9	13	16	20	58
2	24	26	19	16	85
3	0	0	1	0	1
4	1	0	0	0	1
Total	34	39	36	36	145

Pearson chi2(9) = 13.3425 Pr = 0.148
Fisher's exact = 0.070

Table C19. *Fisher's Exact Test: Age*

```
Enumerating sample-space combinations:
stage 5:  enumerations = 1
stage 4:  enumerations = 13
stage 3:  enumerations = 697
stage 2:  enumerations = 4207
stage 1:  enumerations = 0
```

	Condition				
age	1	2	3	4	Total
2	14	17	20	14	65
3	14	12	9	13	48
4	3	6	2	2	13
5	3	4	3	6	16
6	0	0	2	1	3
Total	34	39	36	36	145

```
          Pearson chi2(12) =  10.7529   Pr = 0.550
            Fisher's exact =                 0.651
```

Table C20. *Fisher's Exact Test: Income*

```
Enumerating sample-space combinations:
stage 7:  enumerations = 1
stage 6:  enumerations = 115
stage 5:  enumerations = 3087
stage 4:  enumerations = 13021
stage 3:  enumerations = 30858
stage 2:  enumerations = 49899
stage 1:  enumerations = 0
```

	Condition				
income	1	2	3	4	Total
1	11	11	13	9	44
2	8	6	7	10	31
3	3	8	3	5	19
4	4	4	3	2	13
5	2	2	1	2	7
6	1	4	7	5	17
7	5	4	2	4	15
Total	34	39	36	37	146

```
          Pearson chi2(18) =  12.1043   Pr = 0.842
            Fisher's exact =                 0.840
```

Table C21. *Fisher's Exact Test: Ethnicity*

```
Enumerating sample-space combinations:
stage 5:  enumerations = 1
stage 4:  enumerations = 3
stage 3:  enumerations = 109
stage 2:  enumerations = 546
stage 1:  enumerations = 0
```

	Condition				
ethnicity	1	2	3	4	Total
2	1	2	1	3	7
4	2	3	0	1	6
5	28	27	32	31	118
6	0	1	0	0	1
7	3	6	3	1	13
Total	34	39	36	36	145

```
          Pearson chi2(12) =  11.7035   Pr = 0.470
            Fisher's exact =                 0.454
```

Appendix D

Table D1. *Descriptive Statistics*

	Factor	***Total Sample***
	n	145
Gender	% Male	40%
	% Female	58.6%
	% Other	0.7%
	% Prefer not to say	0.7%
Age	18-24	44.8%
	25-34	32.4%

	35-44	9.7%
	45-54	11%
	55 or older	2.1%
Income	$0-19,999	30.3%
	$20,000-39,000	21.4%
	$40,000-59,000	12.4%
	$60,000-79,000	9.0%
	$80,000-99,000	4.8%
	$100,000 or higher	11.7%
	Prefer not to answer	10.3%
Ethnicity	Asian / Pacific Islander	4.8%
	Hispanic	4.1%
	White / Caucasian	81.4%
	Multiple Ethnicity	0.7%
	Prefer not to answer	9%

Appendix E

Hypothesis 1

Table E1. *Regression of Mean_Luxury onto Ad_Design*

Source	SS	df	MS	Number of obs	=	145
				F(1, 143)	=	8.05
Model	2.76285722	1	2.76285722	Prob > F	=	0.0052
Residual	49.0980738	143	.343343173	R-squared	=	0.0533
				Adj R-squared	=	0.0467
Total	51.860931	144	.360145354	Root MSE	=	.58595

Mean_luxury	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
Ad_design	.2762381	.0973797	2.84	0.005	.0837483	.4687278
_cons	3.097333	.0676602	45.78	0.000	2.96359	3.231077

Table E2. *Shapiro-Wilk Test for Normality of Residuals Distribution*

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
residuals_1	**145**	**0.99539**	**0.521**	**-1.474**	**0.92977**

Table E3*. Breusch-Pagan/Cook-Weisberg Test for Constant Variance*

```
Breusch-Pagan/Cook-Weisberg test for heteroskedasticity
Assumption: Normal error terms
Variable: All independent variables

H0: Constant variance

    chi2(1) =   0.02
Prob > chi2 = 0.8981
```

Table E4. *Regression of Mean_Luxury onto Ad_Design and Priming*

Source	SS	df	MS	Number of obs	=	145
				F(2, 142)	=	4.33
Model	2.97979554	2	1.48989777	Prob > F	=	0.0150
Residual	48.8811355	142	.344233349	R-squared	=	0.0575
				Adj R-squared	=	0.0442
Total	51.860931	144	.360145354	Root MSE	=	.58671

Mean_luxury	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
Ad_design	.278892	.0975632	2.86	0.005	.0860281	.471756
Priming	.0774069	.0975075	0.79	0.429	-.115347	.2701607
_cons	3.057082	.0846207	36.13	0.000	2.889803	3.224361

Table E5. *Regression of Mean_Luxury onto Ad_Design, Gender, Age, Income, and Ethnicity*

Source	SS	df	MS	Number of obs	=	145
				F(5, 139)	=	2.86
Model	4.83386855	5	.96677371	Prob > F	=	0.0173
Residual	47.0270625	139	.338324191	R-squared	=	0.0932
				Adj R-squared	=	0.0606
Total	51.860931	144	.360145354	Root MSE	=	.58166

Mean_luxury	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
Ad_design	.2715856	.0976137	2.78	0.006	.078586	.4645853
gender	.1612841	.0942889	1.71	0.089	-.0251418	.34771
age	.1008442	.0498122	2.02	0.045	.0023566	.1993318
income	-.0203608	.0254422	-0.80	0.425	-.0706645	.029943
ethnicity	-.0246547	.0534083	-0.46	0.645	-.1302524	.080943
_cons	2.729768	.3373414	8.09	0.000	2.062784	3.396751

Appendix F

Hypothesis 2

Table F1. *Testing the Moderation Effect of Mean_Heritage*

Source	SS	df	MS	Number of obs	=	145
				F(4, 140)	=	13.29
Model	16.6369278	4	4.15923194	Prob > F	=	0.0000
Residual	43.8147964	140	.312962831	R-squared	=	0.2752
				Adj R-squared	=	0.2545
Total	60.4517241	144	.41980364	Root MSE	=	.55943

Mean_expert~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
Ad_design	-.4573905	.4240401	-1.08	0.283	-1.295741	.3809596
Mean_heritage	.345865	.0907416	3.81	0.000	.1664639	.5252661
Interaction	.1636403	.1292155	1.27	0.207	-.0918256	.4191062
Priming	.1228265	.0941146	1.31	0.194	-.063243	.3088961
_cons	2.051889	.2877611	7.13	0.000	1.48297	2.620808

Table F2. *Self-Reported Beliefs on Brand Expertise Perception, sorted by Condition*

-> Condition = 1

his_exp_belief	Freq.	Percent	Cum.
1	33	97.06	97.06
2	1	2.94	100.00
Total	34	100.00	

-> Condition = 2

his_exp_belief	Freq.	Percent	Cum.
1	34	87.18	87.18
2	5	12.82	100.00
Total	39	100.00	

-> Condition = 3

his_exp_belief	Freq.	Percent	Cum.
1	32	88.89	88.89
2	4	11.11	100.00
Total	36	100.00	

-> Condition = 4

his_exp_belief	Freq.	Percent	Cum.
1	35	97.22	97.22
2	1	2.78	100.00
Total	36	100.00	

Table F3. *Regression of Expertise_Belief onto Ad_Design and Priming*

Source	SS	df	MS	Number of obs	=	145
				F(2, 142)	=	0.06
Model	.008288706	2	.004144353	Prob > F	=	0.9437
Residual	10.1572285	142	.071529778	R-squared	=	0.0008
				Adj R-squared	=	-0.0133
Total	10.1655172	144	.07059387	Root MSE	=	.26745

his_exp_be~f	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
Ad_design	-.0081439	.0444737	-0.18	0.855	-.09606	.0797721
Priming	.0124684	.0444483	0.28	0.779	-.0753974	.1003343
_cons	1.073516	.0385739	27.83	0.000	.9972631	1.14977

Table F4. *Regression of Expertise_Belief_Extent onto Ad_Design and Priming*

Source	SS	df	MS	Number of obs	=	145
				F(2, 142)	=	4.11
Model	8.11633142	2	4.05816571	Prob > F	=	0.0184
Residual	140.131944	142	.986844679	R-squared	=	0.0547
				Adj R-squared	=	0.0414
Total	148.248276	144	1.02950192	Root MSE	=	.9934

his_exp_ex~t	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
Ad_design	.1875	.16519	1.14	0.258	-.1390495	.5140495
Priming	.4409722	.1650957	2.67	0.008	.1146092	.7673353
_cons	3.184028	.1432764	22.22	0.000	2.900798	3.467258

Appendix G

Hypothesis 3

Table G1. *Output from PROCESS Macro (Model 4) on SPSS with confidence level for all confidence intervals in output at .95.*

```
Model  : 4
   Y  : M_lux
   X  : Ad_des
   M  : M_exp

Sample
Size:  145

OUTCOME VARIABLE:
 M_exp

Model Summary
        R      R-sq       MSE         F       df1       df2         p
    .1414     .0200     .4218    2.9185    1.0000  143.0000     .0897

Model
            coeff       se         t         p      LLCI      ULCI
constant   3.1613     .0750   42.1569     .0000    3.0131    3.3096
Ad_des      .1844     .1079    1.7084     .0897    -.0290     .3977

Standardized coefficients
          coeff
Ad_des     .2820

**************************************************************************
********
OUTCOME VARIABLE:
 M_lux

Model Summary
        R      R-sq       MSE         F       df1       df2         p
    .5368     .2881     .2794   28.7353    2.0000  142.0000     .0000

Model
            coeff       se         t         p      LLCI      ULCI
constant   1.6186     .2236    7.2376     .0000    1.1765    2.0607
Ad_des      .2203     .0887    2.4832     .0142     .0449     .3957
M_exp       .4587     .0681    6.7395     .0000     .3241     .5932

Standardized coefficients
          coeff
Ad_des     .3542
M_exp      .4820
```

```
************************** TOTAL EFFECT MODEL
**************************
OUTCOME VARIABLE:
 M_lux

Model Summary
       R      R-sq       MSE         F       df1       df2         p
    .2458     .0604     .3661    9.1934    1.0000  143.0000     .0029

Model
            coeff        se         t         p      LLCI      ULCI
constant   3.0687     .0699   43.9197     .0000    2.9306    3.2068
Ad_des      .3049     .1006    3.0321     .0029     .1061     .5037

Standardized coefficients
           coeff
Ad_des      .4901


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

Total effect of X on Y
    Effect        se         t         p      LLCI      ULCI      c_ps
     .3049     .1006    3.0321     .0029     .1061     .5037     .4901

Direct effect of X on Y
    Effect        se         t         p      LLCI      ULCI     c'_ps
     .2203     .0887    2.4832     .0142     .0449     .3957     .3542

Indirect effect(s) of X on Y:
        Effect    BootSE  BootLLCI  BootULCI
M_exp     .0846     .0535    -.0133     .1964

Partially standardized indirect effect(s) of X on Y:
        Effect    BootSE  BootLLCI  BootULCI
M_exp     .1360     .0832    -.0216     .3027
```

Table G2. *Output from PROCESS Macro (Model 4) on SPSS with confidence level for all confidence intervals in output at .90.*

```
Model  : 4
   Y  : M_lux
   X  : Ad_des
   M  : M_exp

Sample
Size:  145

OUTCOME VARIABLE:
 M_exp

Model Summary
        R       R-sq        MSE          F        df1        df2          p
    .1414      .0200      .4218     2.9185     1.0000   143.0000      .0897

Model
             coeff         se          t          p       LLCI       ULCI
constant    3.1613      .0750    42.1569      .0000     3.0372     3.2855
Ad_des       .1844      .1079     1.7084      .0897      .0057      .3631

Standardized coefficients
            coeff
Ad_des      .2820

**************************************************************************
********
OUTCOME VARIABLE:
 M_lux

Model Summary
        R       R-sq        MSE          F        df1        df2          p
    .5368      .2881      .2794    28.7353     2.0000   142.0000      .0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    1.6186      .2236     7.2376      .0000     1.2484     1.9889
Ad_des       .2203      .0887     2.4832      .0142      .0734      .3672
M_exp        .4587      .0681     6.7395      .0000      .3460      .5714

Standardized coefficients
            coeff
Ad_des      .3542
M_exp       .4820

************************** TOTAL EFFECT MODEL
**************************
OUTCOME VARIABLE:
 M_lux
```

Model Summary

R	R-sq	MSE	F	df1	df2	p
.2458	.0604	.3661	9.1934	1.0000	143.0000	.0029

Model

	coeff	se	t	p	LLCI	ULCI
constant	3.0687	.0699	43.9197	.0000	2.9530	3.1843
Ad_des	.3049	.1006	3.0321	.0029	.1384	.4714

Standardized coefficients

	coeff
Ad_des	.4901

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

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps
.3049	.1006	3.0321	.0029	.1384	.4714	.4901

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps
.2203	.0887	2.4832	.0142	.0734	.3672	.3542

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
M_exp	.0846	.0532	.0029	.1788

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
M_exp	.1360	.0829	.0051	.2786

Appendix H

Hypothesis 4

Table H1. *Regression of Purchase_Intent onto Mean_Luxury and Ad_Design*

Source	SS	df	MS	Number of obs	=	145
				F(2, 142)	=	15.69
Model	48.4275247	2	24.2137624	Prob > F	=	0.0000
Residual	219.200061	142	1.5436624	R-squared	=	0.1810
				Adj R-squared	=	0.1694
Total	267.627586	144	1.8585249	Root MSE	=	1.2424

purch_intent	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
Mean_luxury	.7672893	.1773144	4.33	0.000	.4167723	1.117806
Ad_design	.5223312	.2122113	2.46	0.015	.1028296	.9418327
_cons	-.2965508	.5676308	-0.52	0.602	-1.41865	.8255479

Table H2. *Regression of Purchase_Intent onto Mean_Luxury, Ad_Design, and Mean_Expertise*

Source	SS	df	MS	Number of obs	=	145
				F(3, 141)	=	18.75
Model	76.3341044	3	25.4447015	Prob > F	=	0.0000
Residual	191.293482	141	1.35669136	R-squared	=	0.2852
				Adj R-squared	=	0.2700
Total	267.627586	144	1.8585249	Root MSE	=	1.1648

purch_intent	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
Mean_luxury	.3541084	.1895569	1.87	0.064	-.0206327	.7288495
Ad_design	.5048867	.1989821	2.54	0.012	.1115128	.8982607
Mean_expert~e	.7814468	.1723005	4.54	0.000	.4408204	1.122073
_cons	-1.499709	.594604	-2.52	0.013	-2.6752	-.3242174