Sensory Claims in Digital Skincare Marketing: The Moderating Role of Consumer Involvement

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Abstract

Title: Sensory Claims in Digital Skincare Marketing: The Moderating Role of Consumer Involvement

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This master thesis explores the impact of sensory-rich versus sensory-poor product descriptions on consumer behavior in online skincare shopping. Since digital commerce is growing and thus physical product interaction become limited, marketers increasingly rely on language to convey product value and to explain the product. Drawing on the Elaboration Likelihood Model and sensory marketing theory, this study investigates how linguistic style influences purchase intention, willingness to pay, perceived quality, and perceived risk. Additionally, it examines whether consumer involvement moderates these effects.

A 2x2 between-subjects online experiment (N = 145) was conducted using a fictional sunscreen product. Participants were randomly assigned to one condition which was either a sensory-rich or sensory-poor product description and categorized into high or low involvement groups based on their responses to the Consumer Involvement Profile. Results showed no main effects of sensory language on behavior across the total sample. However, a significant interaction was found: sensory-rich language increased purchase intention and willingness to pay, but only among highly involved consumers. No significant effects were observed on perceived quality or skin-related risk. Notably, sensory-poor descriptions were rated as more effective in reducing uncertainty due to the lack of physical interaction.

These findings suggest that the effectiveness of sensory language is conditional, working best for high involvement skincare consumers. Emotional resonance, not just cognitive elaboration, may drive these effects. The study calls for more nuanced models of involvement and encourages marketers to balance sensory and factual language based on audience characteristics.

Key words: Sensory marketing, elaboration likelihood model, consumer involvement profile, product description, consumer behavior, online skincare shopping

Resumo

Título: Alegações Sensoriais no Marketing Digital de Cuidados com a Pele: O Papel Moderador do Envolvimento do Consumidor
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Esta dissertação investiga o impacto de descrições sensoriais versus factuais sobre o comportamento do consumidor na compra de cosméticos online. Com a limitação da interação física no comércio digital, a linguagem se torna essencial para comunicar o valor do produto. Com base no Modelo de Probabilidade de Elaboração e na teoria do marketing sensorial, o estudo analisa como o estilo linguístico influencia a intenção de compra, a disposição a pagar, a qualidade percebida e o risco percebido, considerando o envolvimento do consumidor como moderador.

Um experimento online com delineamento fatorial 2x2 (N = 145) foi conduzido usando um protetor solar fictício. Os participantes foram expostos a uma descrição sensorial ou factual e categorizados em alto ou baixo envolvimento com base no Consumer Involvement Profile. Os resultados não mostraram efeitos principais da linguagem sensorial na amostra total. Contudo, uma interação significativa foi observada: a linguagem sensorial aumentou a intenção de compra e a disposição a pagar entre consumidores altamente envolvidos. Não houve efeitos sobre a qualidade percebida ou o risco relacionado à pele. Descrições factuais foram mais eficazes em reduzir a incerteza causada pela falta de interação física.

Os resultados sugerem que a eficácia da linguagem sensorial depende do nível de envolvimento do consumidor, funcionando melhor para quem tem alto interesse em cuidados com a pele. O estudo propõe uma visão mais sofisticada do envolvimento e recomenda que o marketing digital adapte o uso de linguagem sensorial ou factual de acordo com o perfil do público.

Palavras-chave: Marketing sensorial, modelo da probabilidade de elaboração, perfil de envolvimento do consumidor, descrição do produto, comportamento do consumidor, compras online de cuidados com a pele

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List of Abbreviations

ELM	Elaboration Likelihood Model
CIP	Consumer Involvment Profile
H1	Hypothesis 1
H2	Hypothesis 2
H3	Hypothesis 3
H4	Hypothesis 4
H5	Hypothesis 5
WTP	Willingness to pay

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1. Introduction

1.1. Background

Skincare and beauty products are sensory Po since consumers often rely on the feel, texture, smell, and overall application experience of products to assess product quality and make a purchase decision (Rathee & Rajain, 2019). Traditionally, these evaluations occurred in physical retail spaces where consumers could test products first-hand (Biswas, 2019). Sensorial interactions such as touching, smelling, and sampling were central to shaping consumers' product perceptions and building brand trust (Biswas, 2019). Over time, retailers have mastered these sensory experiences to engage multiple senses simultaneously and to strategically use sensory marketing to evoke emotional responses, deepen consumer involvement in the traditional brick & mortar sale points and thus enhance purchase decisions (Rathee & Rajain, 2019).

The rapid growth of e-commerce has transformed the way consumers interact with cosmetic and skincare products. According to Eurostat (n.d.), e-commerce refers to the buying or selling of goods and services through electronic transactions, either conducted between individuals, households, businesses, or other organizations. These transactions typically occur over the internet and while the ordering process happens online, payment and product delivery may take place either digitally or through offline channels. In 2024, approximately one in six skincare purchases globally occurred through online channels, contributing to over $30 billion in revenue (Statista, 2024). Looking ahead, the global skincare market is expected to approach $47 billion by 2029, with e-commerce serving as a key driver of this growth due to its convenience and wide accessibility for consumers (Statista, 2024).

This transition to e-commerce has significantly limited consumers' ability to directly engage in sensory evaluation with products. As a result, brands face the challenge of conveying rich sensory experiences through digital formats.

1.2. Research Problem & Relevance

Sensory marketing has emerged as an increasingly influential area within marketing research (Hultén, 2015). Despite significant academic progress, the field remains mainly oriented

toward visual stimuli, with relatively limited understanding of how other sensory cues, such as touch, scent, and texture, can be evoked in virtual settings (Petit et al., 2018).

While researchers have begun to explore how language can indirectly simulate sensory experiences, such work has largely been confined to food and beverage contexts. For example, Elder and Krishna (2009) demonstrated that consumers' taste perceptions can be shaped by the linguistic framing of chewing gum flavors, even without physical tasting. These findings support the hypothesis that multisensory impressions can be generated linguistically, thereby influencing consumer perception and behavior. However, little empirical attention has been given to how such mechanisms operate in the cosmetics industry**.**

As Kaushik and Gokhale (2021) argue, brands must increasingly rely on creative strategies to simulate physical experiences online for credibility and to foster consumer trust. Moreover, Hultén (2020) states that even digital platforms can and should be designed as multisensory environments. Nonetheless, as Petit et al. (2018) observe, most brands underutilize this potential, leaving substantial room for innovation in the design and delivery of sensorial brand communication in digital contexts.

Therefore, the present study investigates how sensory-rich versus sensory-poor product descriptions influence consumer behavior in digital advertising for skincare products. Specifically, it examines the effects of sensory language on perceived product quality**,** willingness to pay**,** and perceived purchase risk and the moderating role of consumer involvement.

In doing so, this research makes several contributions. First, it advances current understanding of how sensory language shapes consumer responses to marketing communication in online environments. While some research has examined the role of language in digital ads (Berger & Milkman, 2012; Yusuf & Abas, 2024), the specific role of sensory language in driving consumer behavior remains underexplored.

Second, this research extends the literature on sensory marketing by shifting attention from physical sensory stimuli to indirect sensory stimuli. While prior research has shown that sensory elements in packaging and product design can enhance consumer attitudes and behaviors (Krishna, 2012; Krishna & Schwarz, 2014; Krishna et al., 2016), relatively little is known about whether sensory-rich language alone can serve as a substitute for direct sensory input.

Third, the study introduces a moderating perspective by examining how the effects of sensory-rich language are influenced by consumer involvement in the skincare product category. While Rizzo et al. (2023) have demonstrated that sensory language can enhance the perceived authenticity of influencers and thereby influence consumer behavior, this study centers the consumer more directly by exploring how individual differences in product category involvement shape their reactions to sensory-rich product descriptions. In doing so, it offers a more consumer-centric lens on the mechanisms.

Lastly, this research addresses a practical challenge that marketers are facing namely, how to design effective, engaging communication for experiential products in an online context. By exploring how verbal sensory cues can compensate for the loss of direct experience, this study provides actionable insights for brands seeking to enhance consumer trust**,** emotional engagement, and perceived value through product descriptions and claims.

1.3. Research Questions

Therefore, the research questions this thesis aims to answer are:

RQ1. To what extent does a sensory-rich (versus sensory-poor) product description influence consumers' purchase intention, willingness to pay, and perceived product quality?

RQ2. How does the sensory richness of product information affect perceived risk when purchasing skincare products online?

RQ3. Does consumer involvement in skincare moderate the relationship between sensory-rich product descriptions and purchase intention, willingness to pay, perceived quality, and/or perceived risk?

2. Literature Review

2.1. Sensory Marketing

Sensory marketing refers to the practice of influencing consumers' perceptions, attitudes, and behaviors by stimulating one or more of their five senses which are sight, sound, smell, taste, and touch (Hultén, 2020). It is rooted in the idea that consumer experiences are significantly shaped by how products are perceived through sensory input (Hultén, 2020). Rather than

focusing solely on the functionality of a product, sensory marketing aims to build emotional and psychological connections through sensorial engagement (Hultén, 2020).

Marketing efforts that incorporate sensory strategies can either target a single sense or engage multiple senses simultaneously, which is then referred to multi-sensory marketing (Velasco & Obrist, 2020). Multi-sensory marketing offers marketers a way to address the emotional, intellectual, and experience-driven needs of their customers. By engaging multiple senses at the same time the consumer experience is enhanced, which makes it richer and more memorable than single sensory marketing (Hultén, 2020).

Furthermore, both positive and negative sensory encounters can shape long-term brand perceptions, underlining the importance of thoughtful sensory branding strategies (Hultén, 2020). A study conducted by Homburg, Imschloß, and Kühnl (2017) on sensory overload and the congruence of sensory stimuli has found out that when sensory inputs are harmoniously aligned, consumers exhibit a significantly higher willingness to pay and more favorable product evaluations. These results emphasize the importance of multi-sensory coherence, suggesting that it is not only the presence of sensory stimuli that matters, but also how well they complement each other.

2.2. Sensory Language

Kotler (2000) stated that companies succeed not only by offering functional benefits, but by communicating in ways that resonate with the values and expectations of their audience. Consequently, it is important to adapt the communication to the expectations of the target audience.

This perspective has gained importance in the context of experiential and sensory branding, where language serves not just as an informative tool but as a bridge between products and the senses (Schmitt, 1999; Kapferer, 2012; Rodrigues et al., 2011).

One specific strand of sensory branding is the strategic use of sensory language, defined by Krishna (2012) as any linguistic expression that stimulates the senses whether directly, through adjectives and verbs, or more subtly, through imagery and metaphor. Sensory terms like "velvety" or "crisp" are not only decorative, but they function as mental triggers, making consumers to imagine the product in tactile, gustatory, or olfactory terms (Barsalou, 2007). Through this process, language can elicit sensations that mirror actual sensory experiences

(Barsalou, 2007). Therefore, sensory language can serve as a form of indirect sensory simulation.

Experimental studies support the thesis that sensory language influences how consumers perceive and evaluate products. Elder and Krishna (2012) demonstrated that descriptions which referred to multiple senses such as taste, texture, and aroma led to more favorable evaluations and heightened taste expectations compared to neutral descriptions. Their findings suggest that linguistically evoked multisensory imagery enhances product appeal by making the consumption experience more mentally vivid and thus improves the product evaluation. Similarly, Fenko, de Vries and van Rompay (2018) found that advertisements combining visual elements with richly descriptive copy significantly increased consumers' intention to purchase, pointing to the importance of holistic multisensory messaging.

This becomes particularly relevant in online shopping, where consumers are unable to physically interact with products. The absence of touch, smell, and texture, an issue often referred to as Online Sensory Deprivation (OSD), presents a major challenge for categories that are traditionally evaluated through direct experience, such as cosmetics (Solomon et al., 2016).

In addition, the style and structure of language itself can influence consumer outcomes. Wyer (2008) showed that the linguistic characteristics of messages including concreteness, specificity, and figurative language can shape memory retention and attitudes toward the advertised product.

2.3. Mental Imagery

Mental imagery involves the internal experience of visualizing or sensing an object in the mind, independent of any external stimulus, and it is inherently subjective (Macfie et al., 2023). Consequently, the vividness and amount of mental imagery experienced can vary between individuals or situations (Macfie et al., 2023). Sensory inputs like sight, touch, and scent can be mentally integrated through imagery, stimulating memory and imagination, which in turn positively influence consumer attitudes (J. Wu et al., 2020). Extensive research in advertising suggests that in the absence of direct product interaction, consumers tend to rely on mental imagery triggered by indirect cues or representations (Krishna & Elder, 2012) (Fenko de Vries and van Rompay, 2018). Another study on food has shown that simply imagining the product's smell which is referred to 'smellizing' increases salivation, craving and purchase intent of advertised product (Wright-Whitley, 2014). Also, in the fashion industry a study was

conducted, and it was found that when consumers cannot physically touch a product online, they at least expect to be able to imagine how it might feel in their hands (Silva et al., 2020). Silva et al. (2020) found that in the context of online fashion retail, using detailed, touch-focused language enhanced consumers' ability to mentally imagine the feel of the product. This heightened haptic imagery subsequently led to higher perceived product quality and greater purchase intentions. This study found textual descriptions of touch were even more effective than static images in generating these positive effects (Silva et al., 2020).

Therefore, it was found that individuals are able to simulate experiences internally, even in the absence of an actual external stimulus (Rodríguez-Ardura & Meseguer-Artola, 2015) (Silva et al., 2020). Consequently, the mental images consumers form about a product serve as an important basis for how they evaluate and make judgments about it (Yoo & Kim, 2014) (Silva et al, 2020).

However, recent studies have found that the effectiveness of vivid information is influenced by how easily a consumer can imagine the product (Flavián et al., 2017). When a product is presented with a lot of information, individuals may experience reduced processing fluency, as it takes more cognitive effort to interpret and identify physical characteristics (K. Wu et al., 2015).

2.4. Consumer Involvement

Consumer involvement is a foundational concept in consumer behavior and marketing, referring to the personal relevance or significance that an individual attaches to a product category, brand, or purchase decision (Zaichkowsky, 1985).

Kapferer and Laurent (1985) expanded on this definition by describing involvement as a motivational state triggered by a particular situation or stimulus that guides the consumer's attention, processing depth, and decision-making effort. This motivational state is not constant across all categories or situations but rather, it is context dependent (Kapferer & Laurent, 1985). Meaning that consumers may be highly involved in some product categories while remaining indifferent to others (Kapferer & Laurent, 1985).

In their model, Kapferer and Laurent (1985) conceptualized involvement as a multidimensional construct and introduced the Consumer Involvement Profile (CIP), which explains differences in involvement levels. It is based on five pillars:

1. Interest/Importance: The degree to which the product is personally meaningful, based on values or lifestyle fit.
2. Pleasure: The enjoyment or sensory satisfaction obtained from the product experience.
3. Sign Value: The product's capacity to express one's identity, social role, or status.
4. Risk Importance: The feeling that making the wrong choice could have real consequences or lead to a negative outcome.
5. Risk Probability: The perceived likelihood of making the wrong decision, which increases uncertainty and anxiety.

These pillars illustrate that involvement is shaped not only by rational considerations but also by emotional and symbolic meanings attached to the product category.

Involvement is often conceptualized to range from low to high. Low-involvement decisions are typically habitual, low-risk and routine (Niosi, 2021). These decisions involve limited effort and minimal information search (Niosi, 2021). On the other end, high-involvement decisions are complex, emotionally significant and often carry perceived risks (Niosi, 2021).

According to Nurhaliza and Adnans (2023), high-involvement consumers actively invest time and cognitive resources in their decision-making process. They tend to seek detailed information, compare alternatives, and critically evaluate the quality and suitability of products.

The Elaboration Likelihood Model (ELM) of persuasion (Petty & Cacioppo, 1986) offers a theoretical explanation for how involvement affects information processing. When involvement is high, consumers follow the central route to persuasion, meaning they engage with the content and quality of the message. They evaluate product features, claims, or logical arguments. In this state, consumers are not easily persuaded by superficial cues but instead, they seek substantive and diagnostic information. As a result, marketing communications targeting high-involvement consumers must be clear, credible, and information-rich.

In contrast, low-involvement consumers are less motivated to put in cognitive effort. Their decisions are often based on habit**,** impulse**,** or convenience, and they tend to rely on heuristics or peripheral cues such as packaging design, brand familiarity, or emotional appeal. According to the ELM, these consumers process information through the peripheral route, responding to surface-level signals rather than argument strength.

3. Hypothesis Development

Based on the literature review multiple researchers found that sensorial product descriptions have a positive effect on consumer behavior. Accordingly, the following independent variables are discussed and justified below.

3.1. Purchase Intention

Purchase intention is commonly defined as the consumer's likelihood or predisposition to buy a product soon (Arslan & Zaman, 2014; Hair et al., 2014). It is a widely used predictor of actual buying behavior and is closely linked to brand engagement and customer loyalty (Wu et al., 2011; Kim & Chung, 2011). Although it does not always translate directly into action, it remains a valuable indicator of consumer interest and product desirability (Diallo, 2012).

Cognitive and emotional factors are known to shape purchase intentions (Das, 2014), and recent studies highlight the role of sensory marketing in this context. Sensory cues particularly verbal and visual elements can stimulate mental imagery and positively affect consumer attitudes (Petit et al., 2015). For example, Fenko et al. (2018) found that indirect sensory language, such as describing texture or taste, enhances product perceptions and strengthens purchase intention. Similarly, Banachenhou et al. (2018) showed that both verbal and visual packaging elements significantly positively influence consumers' intention to buy. Thus the first hypothesis is:

H1: *Sensory-rich product descriptions have a positive effect on purchase intention, whereas sensory-poor descriptions have a negative effect on purchase intention.*

3.2. Willingness to Pay

Willingness to pay (WTP) shows the highest amount someone would spend on a product and gives insight into how much they personally value it (Musliu, 2024). It is strongly associated with perceived product desirability and has been shown to be a reliable predictor of actual purchasing behavior (Hanemann, 1991) (Wertenbroch & Skiera, 2002). In a marketing context, WTP is especially relevant as it provides insight into a brand's capacity to command premium pricing.

Research shows that sensory marketing can positively influence WTP. Studies by Lindstrom (2005) and Homburg et al. (2017) suggest that sensory strategies enhance emotional brand connections, which can increase consumers' acceptance of higher prices. More recently,

Krupka (2023) and Kim et al et al. (2021) found that sensory-rich and hedonic product presentations significantly raised WTP compared to utilitarian ones.

Additionally, WTP is strongly influenced by perceived product quality. Khan and Siddiqui (2023) emphasize that when a product is perceived as high-quality or unique, consumers are more willing to pay a price premium. Thus, WTP captures both the emotional and evaluative dimensions of consumer decision-making, making it a relevant outcome variable in studies of sensory marketing. Consequently, the second hypothesis will be:

H2: *Sensory-rich product descriptions have a positive effect on WTP, whereas sensory-poor descriptions have a negative effect on WTP.*

3.3. Perceived Quality

Perceived quality plays a central role in consumer behavior research due to its strong influence on product evaluations and purchase intentions (Zauner et al., 2015). Aligned with the Theory of Planned Behavior (Ajzen, 1991), it contributes to consumers' attitudes and intention to buy. Defined as a consumer's subjective judgment of a product's quality compared to alternatives, perceived quality goes beyond objective measures and is shaped by emotional, experiential, and contextual factors (Nekmahmud & Fekete-Farkas, 2020).

Research has shown that multisensory marketing can enhance perceived quality. Hultén (2015) emphasize that incorporating sensory elements can enrich the consumer experience and increase quality perceptions. This is particularly important in the skincare and cosmetics sector, where non-functional attributes like descriptive language, scent, and texture often play a key role in shaping how consumers assess product quality (Zha et al., 2021). Therefore, the third hypothesis is:

H3: *Sensory-rich product descriptions have a positive effect on perceived quality, whereas sensory-poor descriptions have a negative effect on perceived quality.*

3.4. Perceived Purchase Risk

Perceived risk refers to the consumer's subjective expectation of potential negative outcomes associated with a purchase (Park et al., 2005). Unlike objective risk, which is measurable, perceived risk is influenced by personal experiences, trust in the brand or channel, and the availability of product-related information (Mitchell, 1999).

In e-commerce, perceived risk might be heightened due to the lack of physical interaction, especially in sensory-driven categories like skincare. As Hultén (2020) notes, touch and texture are central to product evaluation yet absent online. This sensory gap might therefore lead to mismatched expectations, which reduces consumer confidence (Hamacher & Buchkremer, 2022).

To compensate, consumers could rely on verbal cues and imagery. Park et al. (2005) argue that vivid product descriptions can help reduce uncertainty when direct experience is not possible. Mental imagery plays a role as well, Sobkow et al. (2016) found that negative or unclear mental images increase perceived risk, while vivid, positive imagery has the opposite effect.

Finally, Wu et al. (2020) demonstrate that sensory-rich advertising can serve as a risk-mitigation strategy by allowing consumers to mentally simulate the product experience, which fosters emotional reassurance and lowers perceived uncertainty. Consequently, the forth hypothesis will be:

H4: *Sensory-rich product descriptions lower the perceived risk of purchasing skincare online whereas sensory-poor product descriptions heighten the perceived risk of purchasing skincare online.*

3.5. Consumer Involvement

Consumer involvement influences how individuals process marketing messages and make purchasing decisions (Zaichkowsky, 1985) (Kapferer & Laurent, 1985). In the skincare sector, higher involvement has been linked to a greater likelihood of brand purchase (Nurhaliza & Adnans, 2023). According to the Elaboration Likelihood Model (ELM), highly involved consumers process information through the central route focusing on detailed, logical content, while low-involvement consumers rely on peripheral cues such as visuals or emotional impulsive purchasing (Petty & Cacioppo, 1986).

In the context of sensory marketing, consumer involvement plays a crucial role in shaping how product descriptions are processed. High-involvement consumers might generally be more responsive to sensory-rich product descriptions because such messages satisfy both their cognitive and emotional needs. They are more invested in the product category and therefore tend to evaluate attributes like scent, texture, or how the product feels on the skin with greater attention. These sensory attributes are in skincare considered to play a vital as they are not just

supplementary, but they are integral to the product's perceived efficacy and user satisfaction (Karevs, 2024). For instance, the texture of a skincare product can influence a consumer's perception of its value and luxury and thereby impacting their overall experience and loyalty to the product (Aral, 2025). As a result, sensory language that vividly conveys these qualities can enhance their perception and decision-making processes, making the consumers more inclined to choose product that promise a satisfying sensory experience (Aral, 2025). According to the ELM these consumers process information via the central route, meaning they engage more deeply with well-structured, detailed, and meaningful content. In contrast, low-involvement consumers are typically less motivated to engage with descriptive or elaborate language. Their decisions tend to rely on habitual or surface-level cues, such as packaging, brand familiarity, or simplicity of the message. They are more likely to process information through the peripheral route, responding to ease and familiarity rather than message depth and sometimes not even noticing or processing the sensory language at all.

Due to the reason that information is processed differently depending on the involvement level of a consumer according ELM, the conclusion would be that not all consumers respond similarly to sensory language, therefore the following is hypothesized:

H5: *Consumer involvement moderates the effect of sensory-rich (vs. sensory-poor) product descriptions on purchase intention, willingness to pay, perceived product quality, and perceived risk. Specifically, sensory-rich descriptions will have a stronger positive effect on these outcomes for high-involvement consumers, whereas low-involvement consumers will be less affected or respond more positively to sensory-poor descriptions.*

3.6. Conceptual Model

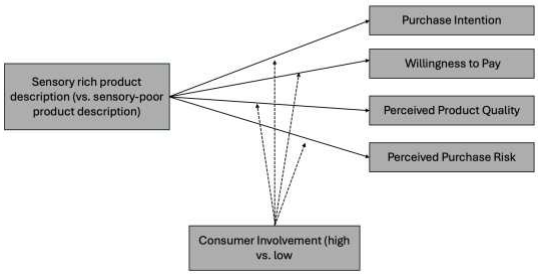


Figure 1: Conceptual Model

4. Methodology

This chapter explains how the study was designed to test the research hypotheses. The main variable manipulated was the type of product description, either sensory-rich or sensory-poor. The outcomes measured included purchase intention, willingness to pay, perceived product quality, and perceived purchase risk. Consumer involvement was examined as a moderating factor and categorized into high or low based on participants' responses to the CIP. The chapter begins with an overview of the research design, including the use of an online survey to gather primary data. It then walks through the sampling strategy and data collection process, followed by a description of how each key variable was measured. Finally, it outlines the statistical methods used to analyze the data.

4.1. Research Design

This study adopts a conclusive, causal explanatory research design, aimed at testing predefined hypotheses and identifying cause-and-effect relationships via an online survey (Malhotra, 2010). Specifically, it examines how sensory-rich versus sensory-poor product descriptions influence purchase intention, willingness to pay, perceived product quality, and perceived risk in the context of online skincare shopping, and how these effects are moderated by consumer involvement.

A quasi-experimental method is employed, in which the researcher controls the timing and assignment of conditions, but without full random exposure to treatment (Malhotra, 2010). While random assignment of participants to experimental conditions is maintained, full experimental control over the environment is limited, which makes this a practical and cost-effective design for online behavioral research.

The study uses a 2x2 factorial design, allowing for the analysis of main effects (sensory description and involvement) and their interaction effects. This approach enables deeper insight into not only whether sensory descriptions influence consumer behavior, but also for whom and under what conditions these effects are strongest.

4.2. Data Processing & Collection

To obtain objective results, participants were not informed about the specific goal of the study. At the beginning of the survey, they were thanked for their participation and informed that their responses would remain anonymous and confidential. After agreeing to take part, participants

first answered a set of questions used to assess their level of involvement in skincare based on the CIP by Kapferer & Laurent (1985), which served as the study's moderating variable. Next, the respondents were randomly assigned to one of two experimental conditions. All participants were asked to imagine they were making an online purchase decision for a sunscreen. Whether or not they had previously bought skincare products online was included as a control variable. Then, to one group a sensory-rich product description and claim was shown, while the other group received a sensory-poor version. Directly after that participants were asked to assess the sensory richness of the product descriptions, in order to make sure that the participant has understood the manipulation. Afterwards the participants were asked questions about their purchase intention of that specific sunscreen, their willingness to pay, perceived quality of the sunscreen and the perceived risk of purchasing this sunscreen online. Finally, demographic questions regarding gender, age and spendings on skincare products were asked.

4.3. Materials

The manipulation of the dependent variable is a critical component of this study designed to investigate the influence it has on purchase intention, willingness to pay, perceived quality and perceived purchase risk. The manipulation involves creating two distinct conditions i) sensory-rich product description and ii) sensory-poor product description. The images differ for their claim and product description, the visual cues remained the same. Participants assigned to the condition will be exposed to the same set of questions testing purchase intention, willingness to pay, perceived quality and purchase risk.

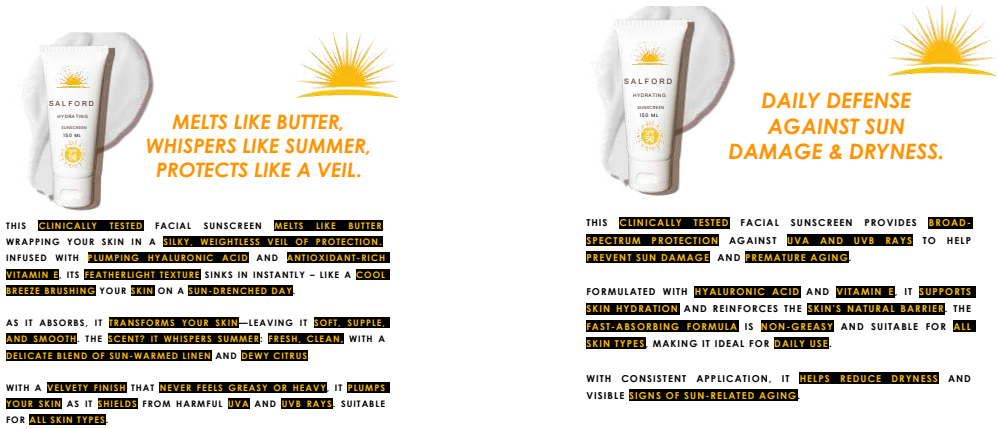


Figure 2: Images sensory-rich and sensory-poor product description

4.4. Measurement of Scales

This study utilized a non-comparative measurement approach, where each stimulus was rated independently rather than in comparison to other alternatives (Malhotra, 2010). Itemized rating scales were applied throughout the questionnaire to ensure structure and consistency in data collection. Most key constructs were measured using interval scales, which assume equal spacing between response options and are suitable for ANOVA analysis (Malhotra, 2010). Demographic variables were assessed using nominal scales. The reliability analyses were conducted using Cronbach's alpha for all multi-item scales while following Taber's (2018) guidance, that α values $\geq .70$ are considered acceptable.

To enhance ease of use and reduce participant fatigue, a 5-point Likert scale was used for all interval-based questions (Malhotra, 2010). The midpoint (3) represented a neutral position, while only the endpoints were labeled ("1 = not at all" and "5 = extremely"). Research indicates that partial labeling reduces ambiguity while helping respondents interpret scale distances more accurately (Malhotra, 2010). Furthermore, strong endpoint anchors have been shown to mitigate central tendency bias and encourage more informative response patterns (Malhotra, 2010).

Consumer involvement was measured using an adapted version of the CIP developed by Kapferer and Laurent (1985). This multidimensional scale captures the personal relevance of a product category through dimensions such as interest, enjoyment, symbolic value, and risk importance. Respondents rated each of the original ten items on a 5-point Likert scale from "1 = strongly disagree" to "5 = strongly agree." Two items: "When I buy skin care I can never be exactly sure if the choice was right" and "When I am in front of the skin care section, I always feel unsure about which to choose" were excluded due to low item-total correlations and their conceptual overlap with perceived risk rather than involvement. The remaining eight items demonstrated acceptable reliability (Cronbach's $\alpha = .742$), aligning with standards for internal consistency in scales (Taber, 2018). A composite involvement score was computed for each respondent and subsequently used to divide participants into low- and high-involvement groups via median split, following standard practice in consumer research (Zaichkowsky, 1985).

The dependent variables purchase intention, willingness to pay, perceived product quality, and perceived risk were measured using custom-developed Likert-type items. Purchase intention

and WTP were each captured by single-item measures, a common approach in exploratory behavioral studies (Bergkvist & Rossiter, 2007).

To assess perceived product quality, participants responded to eight items evaluating aspects such as effectiveness, long-lasting protection, product features (e.g., SPF, texture), consistency, and overall evaluation of the sunscreen. All items were rated on a 5-point Likert scale ranging from 1 ("not at all") to 5 ("extremely"). The internal consistency of the perceived quality scale was high (Cronbach's $\alpha = .877$), indicating strong reliability.

Three distinct constructs of perceived risk were assessed in this study: (a) perceived risk related to potential skin irritation, and (b) uncertainty due to the inability to physically evaluate the product (e.g., touch or smell) prior to purchase (c) the extent to which the product description helps reduce this purchase-related uncertainty. To determine whether items could be combined into reliable scales, Pearson correlation coefficients were calculated. The results showed that Q15 and Q16_reversed were significantly and strongly correlated, $r = .550$, $p < .001$, indicating they measured a shared underlying construct. However, Q17 and Q18_reversed were not significantly correlated, $r = .119$, $p = .145$, suggesting they tapped into different dimensions. Therefore, Q17 and Q18_reversed were measured separately.

4.5. Control Variable

In quasi-experimental research, control variables are used to account for alternative explanations by holding potentially confounding factors constant across conditions (Shadish et al., 2001). Including control variables enhances the internal validity of this study, ensuring that observed effects can more confidently be attributed to the manipulated independent variable rather than to uncontrolled influences (Hair et al., 2014).

In this study the control variable was the participants' previous experience purchasing skin care product, assessed with the dichotomous question: *"Have you ever purchased skincare products?"* (yes/no). By measuring whether respondents had previously purchased skincare, the analysis controls for the potential influence of familiarity and product usage patterns, which might otherwise bias responses related to purchase intention, perceived quality, or risk perception. This is particularly relevant in skincare, where product knowledge and trust in product categories can significantly shape consumer behavior (Tariq et al., 2013).

5. Results

The data collected through the online questionnaire was exported and analyzed using SPSS. This chapter presents the sample, manipulation checks and the results of the statistical analyses and evaluates whether the proposed hypotheses are supported or rejected based on the findings.

5.1. Sample

In total N=145 valid responses were gathered using multiple personal networks and the convenience sampling method was used due to time and financial constraints. The survey was distributed through WhatsApp, Instagram, LinkedIn and Teams and it was configured to automatically delete incomplete responses after 24 hours, which ensured that no missing values were present in the dataset and therefore no additional data cleaning was required. The sample was nearly equally distributed between the two experimental conditions, of all the participants a total of 80 (equals to 55%) was assigned to the sensory-rich product description and 65 (equals to 45%) was assigned to the sensory-poor product description.

To measure differences in consumer involvement with skincare products, participants were classified into either high or low involvement groups based on their responses to an adapted version of the CIP Matrix developed by Kapferer and Laurent (1985). To categorize participants, a median split was applied to the resulting composite consumer involvement score, which was named Involvement_group_withoutQ9andQ10. Respondents with an average involvement score equal to or below 3.50 were classified as low-involvement consumers (coded as 0), while those scoring above 3.50 were categorized as high-involvement consumers (coded as 1). This resulted in a nearly equal split of the sample, with 74 participants (51%) identified as low involvement consumers and 71 participants (49%) as high involvement consumers. This dichotomous classification served as a moderating variable in subsequent analyses to assess interaction effects between consumer involvement and product description type.

5.2. Manipulation Check

To verify the effectiveness of the experimental manipulation of product description type (sensory-rich vs. sensory-poor), an independent-samples t-test was conducted. The analysis confirmed that participants exposed to the sensory-rich product description rated it as significantly more sensory-rich ($M = 4.00$, $SD = 1.15$) than those in the sensory-poor condition ($M = 2.46$, $SD = 1.04$), $t(143) = 8.45$, $p < .001$, Cohen's $d = 1.41$. This substantial effect size indicates that the manipulation was successful, and that the classification of product description

types was perceived as intended by participants. The manipulation check thus validates the use of these two conditions in testing the study's hypotheses.

5.3. Analysis

In this section the statistical tests will be explained to test the dependent variables, and the above-mentioned hypotheses will be either verified or rejected. A two-way analysis of variance (ANOVA) was employed to examine the main and interaction effects of two categorical independent variables a) claim type (1 = sensory-rich vs. 2= sensory-poor) and b) consumer involvement (1= high vs. 0= low) on the continuous dependent variables, which are purchase intention, willingness to pay, perceived quality, and perceived risk. This method is appropriate when testing the influence of two factors on an outcome and when assessing whether the effect of one factor depends on the level of another (Field, 2017). The factorial 2×2 design allowed for a comprehensive analysis of both individual and combined effects. When a statistically significant interaction was detected, follow-up independent-samples t-tests were conducted to further explore simple effects and clarify the direction and significance of group differences (Field, 2017).

5.3.1. Purchase Intention

The two-way ANOVA revealed no significant main effects of claim type or consumer involvement on purchase intention. Participants exposed to sensory-rich descriptions ($M = 2.97$, $SE = 0.14$) did not differ significantly from those who saw sensory-poor descriptions ($M = 2.73$, $SE = 0.13$), $F(1,141) = 1.655$, $p = .200$, partial $\eta^2 = .012$. Similarly, high-involvement consumers ($M = 2.96$, $SE = 0.14$) did not significantly differ from low-involvement consumers ($M = 2.73$, $SE = 0.13$), $F(1,141) = 1.482$, $p = .225$, partial $\eta^2 = .010$.

However, a significant interaction effect between claim type and involvement was found, $F(1,141) = 7.744$, $p = .006$, partial $\eta^2 = .052$. Among high-involvement consumers, those exposed to sensory-rich product descriptions reported significantly higher purchase intention ($M = 3.36$, $SD = 1.20$) than those in the sensory-poor condition ($M = 2.58$, $SD = 1.30$), $t(69) = 3.01$, $p = .004$, with a large effect size (Cohen's $d = 1.08$). Conversely, low-involvement consumers showed a non-significant trend in the opposite direction: participants exposed to sensory-poor descriptions reported slightly higher purchase intention ($M = 2.88$, $SD = 1.11$) than those in the sensory-rich condition ($M = 2.59$, $SD = 1.31$), $t(72) = –1.02$, $p = .311$, Cohen's $d = –0.24$.

These findings suggest that the effect of sensory language on purchase intention depends on consumer involvement. While sensory-rich language significantly increased purchase intention among high-involvement consumers, it had no significant effect on low-involvement consumers, who showed a slight preference for simpler claims. Therefore, H1, which proposed a general positive effect of sensory-rich descriptions on purchase intention, is not supported. However, H5, predicting a moderating effect of consumer involvement, is partially supported specifically among highly involved consumers.

5.3.2. Willingness To Pay

The dependent variable WTP was assessed using two complementary levels: maximum willingness to pay (the absolute amount in euros participants were willing to pay for the sunscreen) and relative willingness to pay (participants' agreement with the statement "Compared to other sunscreens, I would pay... Much less / Much more" on a 5-point Likert scale).

5.3.2.1. Maximum Willingness to Pay

The two-way ANOVA showed a significant main effect of consumer involvement, $F(1, 141) = 10.49$, $p = .001$, $\eta^2 = .069$. High-involvement consumers ($M = 14.45$, $SD = 7.04$) were willing to pay significantly more for the sunscreen than low-involvement consumers ($M = 10.82$, $SD = 6.25$).

A significant main effect of claim type was also found, $F(1, 141) = 6.09$, $p = .015$, $\eta^2 = .041$, with sensory-rich descriptions ($M = 14.03$, $SD = 7.11$) resulting in higher maximum price willingness than sensory-poor ones ($M = 11.32$, $SD = 6.43$).

The interaction effect between claim type and involvement was not significant, $F(1, 141) = 0.30$, $p = .587$, indicating no different effect of the claim type depending on involvement level.

Therefore, the results for maximum WTP support H2 while H5 is rejected as consumer involvement does not moderate the relationship between claim type and WTP.

5.3.2.2. Relative Willingness to Pay

The two-way ANOVA showed no significant main effect of claim type on relative WTP, $F(1, 141) = 0.41$, $p = .524$, nor of consumer involvement, $F(1, 141) = 0.08$, $p = .772$.

However, the interaction effect between claim type and consumer involvement was marginally significant, $F(1, 141) = 3.65$, $p = .058$, $\eta^2 = .025$. The pattern suggests that participants with high involvement showed a relatively higher willingness to pay in the sensory-rich condition ($M = 3.13$, $SD = 0.85$) compared to the sensory-poor ($M = 2.77$, $SD = 0.73$), while the opposite trend was observed for low-involvement consumers.

Consequently, H2 for relative WTP is not supported but H5 is marginally supported since the interaction effect is in the right direction, but it is important it is only marginally supported ($p= .058$).

5.3.3. Perceived Quality

The results revealed no significant main effect of claim type on perceived quality, $F(1, 141) = 1.606$, $p = .207$, partial $\eta^2 = .011$. Similarly, there was no significant main effect of consumer involvement, $F(1, 141) = 0.994$, $p = .321$, partial $\eta^2 = .007$. The interaction between claim type and involvement level was also not statistically significant, $F(1, 141) = 1.048$, $p = .308$, partial $\eta^2 = .007$.

Descriptive statistics showed that highly involved participants exposed to the sensory-rich product description reported the highest perceived quality ($M = 3.59$, $SD = 0.81$), while those exposed to the sensory-poor version reported lower scores ($M = 3.33$, $SD = 0.66$). However, these differences were not statistically significant.

A two-way ANOVA revealed no significant main effects of claim type for either low-involvement, $F(1,78) = .101$, $p = .751$, or high-involvement participants, $F(1,63) = 1.878$, $p = .175$. However, descriptive statistics suggested a trend toward higher perceived quality ratings in the sensory-rich condition, particularly among highly involved consumers.

To sum it up, H3 and H5 are both rejected as sensory language did not significantly affect perceived quality and consumer involvement did not significantly moderate this relationship.

5.3.4. Perceived Risk

Perceived risk was a construct consisting of three levels a) skin safety b) uncertainty regarding lack of touch and c) perceived reduction of uncertainty by product descriptions. In the following these levels will be treated separately as they do not correlate with each other.

5.3.4.1. Skin Safety

The dependent variable was the mean score derived from two items measuring skin-related concerns, one of which was reverse-coded prior to analysis (coded as risk_skin).

The ANOVA revealed no significant main effect of claim type on perceived skin risk, $F(1, 141) = 0.019$, $p = .892$, $\eta^2 = .000$. Similarly, the main effect of involvement level was not statistically significant, $F(1, 141) = 0.023$, $p = .880$, $\eta^2 = .000$. Additionally, the interaction between claim type and involvement was also non-significant, $F(1, 141) = 0.712$, $p = .400$, $\eta^2 = .005$. Thus, neither the format of the product description nor the level of consumer involvement significantly influenced perceived risk related to skin safety.

To explore whether skin risk was a concern among consumers in general, a one-sample t-test was conducted comparing the overall mean score (M = 2.46, SD = 0.86) to the scale's midpoint (test value = 3). The result was statistically significant, $t(144) = -7.65$, $p < .001$, with a medium to large effect size (Cohen's $d = -0.64$). This suggests that participants generally did not perceive the sunscreen as likely to cause skin damage or irritation.

Consequently, both H4 and H5 are not supported.

5.3.4.2. Online Uncertainty

Uncertainty due to lack of touch was assessed using two separate constructs: (a) the extent to which the lack of physical interaction (e.g., touch or smell) increased uncertainty about the purchase decision, and (b) the extent to which the product description helped reduce that uncertainty. These two constructs were measured and analyzed independently due to insufficient internal consistency (Pearson's $r = .119$), which indicated that they do not represent a unified scale.

5.3.4.2.1. Uncertainty Due To Lack of Touch/Smell

A two-way ANOVA revealed a significant main effect of claim type, $F(1, 141) = 4.021$, $p = .046$, partial $\eta^2 = .021$. Participants exposed to sensory-rich descriptions reported lower uncertainty (M = 3.26, SE = 0.13) compared to those who received non-sensory descriptions (M = 3.56, SE = 0.12), indicating that sensory language was more effective at reducing concerns arising from the inability to touch or smell the product. No significant main effect of consumer involvement was found, $F(1, 141) = 1.215$, $p = .272$, partial $\eta^2 = .009$, suggesting that

involvement level did not independently influence perceived uncertainty. Furthermore, the interaction between claim type and involvement was not significant, $F(1, 141) = 0.653$, $p = .435$, partial $\eta^2 = .004$. The profile plot illustrates a parallel pattern across involvement levels, indicating that the positive impact of sensory descriptions on reducing uncertainty was consistent regardless of whether consumers were highly or minimally involved with skincare products. These results suggest that while sensory-rich descriptions do help mitigate uncertainty related to the lack of physical interaction, this effect does not depend on consumer involvement.

In conclusion, H4 is supported since participants exposed to sensory-rich descriptions reported lower uncertainty than those exposed to sensory-poor descriptions. However, H5 is not supported since the effect was consistent overall all consumer involvement groups.

5.3.4.2.2. Perceived Reducing of Uncertainty by Product Description

The two-way ANOVA revealed a significant main effect of claim type ($F(1,141) = 4.695$, $p = .032$, $\eta^2 = .032$), indicating that product descriptions had a measurable impact on reducing purchase uncertainty. Specifically, non-sensory claims ($M = 3.08$) were rated as more helpful in reducing uncertainty than sensory-rich claims ($M = 2.69$).
There was no significant main effect of consumer involvement ($F(1,141) = 0.807$, $p = .370$, $\eta^2 = .006$), suggesting that involvement alone did not significantly influence how effective participants found the product descriptions.

The interaction effect between claim type and involvement was also not significant ($F(1,141) = 1.182$, $p = .279$, $\eta^2 = .008$), meaning that the influence of the type of claim on perceived uncertainty reduction did not depend significantly on the consumer's involvement level.

However, descriptive means show an interesting trend: low-involvement participants rated non-sensory claims ($M = 3.25$) more positively than sensory ones ($M = 2.68$), while the difference for high-involvement participants was smaller (non-sensory $M = 2.90$ vs. sensory $M = 2.71$). The profile plot illustrates this with steeper slopes for low-involvement consumers, suggesting a stronger preference among them for clarity and factual descriptions when it comes to reducing uncertainty in online skincare purchases.

To conclude, H4 and H5 are not supported.

5.4. Summary of Findings

Hypothesis	Description	Supported?	Comment
H1	Sensory-rich product descriptions have a positive effect on purchase intention, whereas sensory-poor descriptions have a negative effect.	Rejected	No significant main effect of claim type, but interaction with involvement was significant (see H5).
H2	Sensory-rich product descriptions have a positive effect on willingness to pay (WTP), whereas sensory-poor descriptions have a negative effect.	Partially supported	Significant main effect on maximum WTP, but not on relative WTP.
H3	Sensory-rich product descriptions have a positive effect on perceived quality, whereas sensory-poor descriptions have a negative effect.	Rejected	No significant effects found, only descriptive trends.
H4	Sensory-rich product descriptions lower the perceived risk of purchasing skincare online, whereas sensory-poor descriptions heighten it.	Mixed	Supported for uncertainty due to lack of touch but rejected for skin-related risk and uncertainty compensation of product descriptions.
H5	Consumer involvement moderates the effect of sensory-rich (vs. sensory-poor) product descriptions on purchase intention, WTP,	Partially supported	Significant moderation found only for purchase intention and marginal effect for relative WTP. No moderation

	perceived quality, and perceived risk.		effect found for perceived quality or perceived risk.

Table 1: Summary of Findings

6. Discussion

Based on the study's results, the data points to a nuanced and conditional effect of sensory language and consumer involvement in digital skincare marketing. The research aimed to understand whether sensory-rich (vs. sensory-poor) product descriptions influence purchase intention, WTP, perceived product quality, and perceived risk in online skincare purchases, and whether these effects depend on the consumer's involvement level. While the findings offer some support for the proposed hypotheses, they also highlight inconsistencies with previous literature and raise theoretical and methodological considerations. Therefore, this chapter outlines the interpretation of the results, the limitations of the study, points out potentials for further research and concludes with managerial implications.

6.1. Interpretation

The most robust and theoretically consistent finding is the significant interaction between claim type and consumer involvement on purchase intention. This aligns with the Elaboration Likelihood Model (Petty & Cacioppo, 1986), which suggests that high-involvement consumers engage with message content through the central route, processing details more deeply. Accordingly, high-involvement consumers responded positively to sensory-rich descriptions, likely because these descriptions matched their expectations for both hedonic and diagnostic value. However, low-involvement consumers did not show a significant preference, suggesting that such individuals may rely on heuristic or surface-level cues sometimes favoring simplicity over vividness. This pattern is broadly consistent with past findings (Elder & Krishna, 2012; Rodrigues et al., 2015), affirming the importance of tailoring messages to the audience's level of engagement.

In contrast, the effects on willingness to pay showed a more complex picture. Sensory-rich descriptions significantly increased maximum WTP but not relative WTP. One explanation might be that maximum WTP taps into emotional valuation, as the question assessed how much a product "feels" worth to a consumer, which is triggered by sensory language. Relative WTP, however, involves comparative evaluation, possibly requiring more rational justification that

sensory language alone cannot provide. The marginal interaction between claim type and involvement suggests that while high-involvement participants were more sensitive to these cues, the mechanism might not be purely cognitive. This raises questions about the nature of involvement measured in this study. While the ELM conceptualizes involvement as cognitive elaboration, the Consumer Involvement Profile (Kapferer & Laurent, 1985) used in this study to group the participants into high or low involvement consumers, reflects rather emotional involvement than systematic information procession, since the dimensions measured were interest, pleasure, symbolic value and risk importance. Therefore, this distinction may help explain why sensory-rich descriptions influenced WTP in high-involvement participants but did not necessarily lead to consistent differences in the other dependent variables like perceived quality or risk.

Perhaps most surprising was the lack of significant effects on perceived quality. Although descriptive means hinted at a higher quality rating for sensory-rich descriptions, particularly among highly involved consumers, the results were not statistically significant. This contradicts studies like Silva et al. (2020), which found that touch-related language enhanced quality perceptions. Several explanations are possible. First, participants may have perceived the product as unfamiliar, and the sensory description may have felt disconnected from functional performance. If sensory language does not clearly link to tangible product outcomes like sun protection or absorption, it may lack credibility and fail to influence quality judgments. It may then be felt by the consumer that the sensory language is compensating for the lack of functional quality of the product. Second, the quality scale used in this study emphasized functional, objective criteria such as long-lasting protection, SPF level, and absorption over affective or experiential dimensions. While the scale did include two items about appeal and engagement of the product description, these focused on the text rather than the product itself and therefore were likely insufficient to capture broader emotional or hedonic quality perceptions. The lack of significant effects thus suggests that sensory language in isolation may not be enough to elevate perceived product quality, particularly when the evaluative criteria are primarily functional. This is consistent with findings by Flavián et al. (2017), who argued that overly rich language can reduce processing fluency and increase cognitive load when it lacks specificity or diagnostic value. Moreover, it is likely that consumers base their quality assessments on additional contextual factors such as brand familiarity, prior experiences, or trust in the source which were not controlled for in this study. Therefore, the null results should not be interpreted

as evidence that sensory language has no impact on quality perceptions, but rather as an indication that its effectiveness is contingent on other cues.

In this study perceived risk in the context of online skincare purchase was conceptualized capturing three key facets: a) perceived product safety which was concerned about skin damage and/or irritation, b) uncertainty due to the lack of physical interaction like the inability to touch and smell the product and c) the extent to which the product description helps reducing that uncertainty. These dimensions align with previous literature suggesting that risk in e-commerce settings is multidimensional shaped not only by product attributes but also by the limitations of digital shopping environments (Park et al., 2005; Wu et al., 2020). Regarding perceived product safety, the analysis revealed no significant main effects of claim type or involvement, nor any interaction effects. This suggests that consumers' confidence in the skin safety of the sunscreen was not influenced by the style of the product description or their level of involvement. One sample t-test showed that participants generally rated the product as safe, implying low baseline concern about skin-related risks. This likely explains the null effects, when risk perception is already low, there is little room for sensory language to change evaluations. Therefore, the absence of physical interaction did not lead to heightened concern about skin safety, possibly due to familiar and low-risk nature of sunscreen as a product category. In contrast, the responses to the second and third items indicated more complex results. Sensory-rich product descriptions were rated as more effective at reducing uncertainty stemming from the lack of physical interaction. This aligns with Hultén (2017) and Krishna & Elder (2012), who argue that sensory language can compensate for the absence of direct touch by stimulating haptic mental imagery. Descriptive cues such as texture, scent, or feel may help consumers mentally simulate product experience, thereby lowering the uncertainty caused by online settings. This finding suggests that sensory language has the potential to reduce specific dimensions of perceived risk related to digital sensory deprivation. However, the third item (Q18_reveresed) presented a notable contradiction since the participants rated sensory-poor descriptions as more effective in reducing overall purchase uncertainty. One possible explanation is that while sensory language evokes experience, it may lack the factual precision or credibility needed to resolve uncertainty for all consumers. Park et al. (2002) emphasized that under certain conditions, consumers seek concrete, unambiguous information. In this case, sensory-rich descriptions may have felt too abstract, emotionally charged or unsubstantiated especially in the absence of additional trust cues like brand reputation, familiarity etc.. Importantly, consumer involvement did not moderate significantly any of these effects contradicting H5. Although descriptive patterns

suggested that low-involvement consumers preferred factual descriptions in reducing uncertainty and high-involvement consumer found both types somewhat useful, these trends did not reach statistical significance. To conclude, these findings suggest that perceived risk in online skincare shopping is not uniformly influenced by sensory cues. While sensory-rich descriptions may reduce tactile uncertainty, they do not necessarily create greater overall confidence especially in the absence of diagnostic, fact-based messaging.

6.2. Limitations

While this study provides valuable insights into the role of sensory-rich language in online skincare marketing, several limitations must be acknowledged that constrain the interpretation, internal validity, and generalizability of the findings.

First, the research employed a quasi-experimental design via an online survey with random assignment to experimental conditions but without full environmental control. As a result, participants completed the study in uncontrolled settings, which may have introduced external influences such as screen type, multitasking distractions, or device format. These uncontrolled variables could have affected cognitive engagement or message processing, thus limiting internal validity (Shadish, Cook, & Campbell, 2002).

Second, the use of convenience sampling distributed via personal networks and social platforms like WhatsApp, Instagram, LinkedIn, and Microsoft Teams introduces potential self-selection bias. The resulting sample overrepresented younger, digitally literate individuals, likely already familiar with skincare shopping online. This limits the external validity and generalizability of the findings to broader consumer populations with diverse demographics, digital literacy levels, or purchasing habits.

Third, although multi-item scales were used to measure most constructs, two key variables—purchase intention and relative willingness to pay—were captured using single-item measures. While this approach is common in exploratory consumer behavior research, it restricts the ability to assess reliability and may reduce the robustness of the results (Bergkvist & Rossiter, 2007). Additionally, the CIP was reduced from ten to eight items due to the poor reliability of two reverse-coded items, potentially limiting the dimensionality of involvement captured.

Fourth, although the manipulation checks confirmed that participants perceived the sensory-rich versus sensory-poor claims as intended, the stimuli were limited to static text-based product descriptions. In real-world e-commerce contexts, consumers engage with rich multimedia

content including images, animations, videos, or interactive elements. This lack may have limited the immersive power of the stimuli and, consequently, the emotional or cognitive engagement required to simulate a realistic digital shopping experience (Petit, Velasco, & Spence, 2019).

Fifth, consumer involvement was treated as a categorical moderator through a median split. While this is a common approach in experimental research, it has been critiqued for reducing statistical power and overlooking subtler continuous effects (MacCallum et al., 2002). Moreover, the involvement construct as measured reflects rather emotional attachment or lifestyle relevance rather than cognitive elaboration, as conceptualized in the Elaboration Likelihood Model by Petty & Cacioppo (1986). Without process measures to determine whether involvement was emotional or cognitive, conclusions regarding the type of message processing (central vs. peripheral route) remain speculative.

Sixth, the study did not include any mediators such as mental imagery vividness or emotional arousal. This limits the ability to verify the mechanisms of how sensory language shaped consumer responses. Given the mixed findings e.g., increased willingness to pay despite no significant changes in perceived quality additional psychological process measures like vividness of imagery, affective response, trust, and credibility would be essential in future research to clarify causal effects and better isolate underlying mechanisms.

Finally, the construct of perceived risk was divided into separate dimensions, skin-related safety, uncertainty due to the lack of physical interaction and uncertainty compensation power of product descriptions. Because the intended three-item scale showed insufficient internal consistency, it was treated separately. While this analytic decision was statistically sound (Field, 2017), it reduced the conceptual coherence of the perceived risk construct. The lack of a unified multi-item scale for risk limits the ability to draw strong conclusions about how language influences holistically risk perception in online skincare contexts.

6.3. Theoretical Implications

This study contributes to the literature on sensory marketing, consumer psychology, and digital advertising by offering nuanced insights into how sensory-rich language interacts with consumer involvement to influence key behavioral outcomes in online skincare shopping. The findings confirm, challenge, and extend several theoretical frameworks, most notably the ELM,

research on mental imagery and sensory language, as well as the emerging literature on consumer involvement in digital contexts.

First of all, the findings point to a limitation of the traditional ELM framework, as high-involvement participants, which were measured via the CIP, may have responded to sensory cues through emotional or affective resonance rather than analytical reasoning. This challenges the clear-cut distinction between cognitive and emotional processing in the ELM and suggests a need for a more integrated model that also considers emotional engagement as another way people can be persuaded.

Then, the lack of significant effects on perceived quality questions and the result that sensory-rich language is not always beneficial suggest that the impact of sensory language may depend on the type of consumer judgment being made and the purchase context. While it may enhance emotional or experiential evaluations like desire or perceived value, it may fall short when consumers are looking for factual clarity, particularly in performance-driven categories like sunscreen where reliability and safety matter. This points to a need for theoretical models in sensory marketing to better differentiate between emotional and functional consumer goals and to examine how language aligns with these goals. Future research should therefore consider incorporating emotionally oriented quality items, testing the influence of brand context, and comparing hedonic versus utilitarian product types. Additionally, the effectiveness of sensory language may depend on other factors such as brand familiarity, prior experience, or consumer trust. These variables that should be more directly measured in future studies to clarify these boundary conditions.

Another important theoretical contribution concerns perceived risk in online shopping. Contrary to previous assumptions (Wu et al., 2020), sensory-rich descriptions did not reduce perceived skin risk and were even less effective than factual descriptions at mitigating uncertainty related to the lack of touch or smell. This highlights the complex nature of risk perceptions. In digital contexts, consumers may prioritize concrete, diagnostic cues over emotionally evocative ones, especially for health- or performance-related products. Future models should account for this distinction and explore how different forms of language like emotional, metaphorical, factual address specific risk types.

This study also underscores the need for a more nuanced understanding of consumer involvement. While it has traditionally been treated as a primarily cognitive construct—

associated with deeper thinking and message elaboration (Zaichkowsky, 1985)—the findings here suggest there's more to it. For some consumers, high involvement may not only reflect greater cognitive effort but also a stronger emotional connection or personal relevance to the product category. These affective dimensions could make them more receptive to emotionally charged or sensory-rich language. Notably, involvement moderated several outcomes in the study but did not have a direct effect on its own, indicating its role is more conditional than straightforward. Future theoretical models should therefore account for both the level (high vs. low) and type (emotional vs. cognitive) of involvement and adopt more refined measurement tools to reflect its multidimensional nature.

Finally, the study highlights the need for a contextualized approach to sensory communication. The effectiveness of sensory language is not universal, it depends on consumer traits (e.g., involvement), product type (hedonic vs. utilitarian), and judgment type (emotional vs. functional). Future theory-building should move beyond main-effect models and instead explore interactional frameworks that incorporate consumer, product, and communication variables simultaneously.

6.4. Managerial Implications

The findings of this study offer actionable recommendations for marketers, brand strategists, and e-commerce teams in the skincare and beauty industry. As sensory experiences increasingly shift into digital environments, brands must adapt their communication strategies to maintain emotional engagement and consumer trust. The results highlight the nuanced role of sensory-rich product descriptions in influencing consumer behavior, particularly in the context of varying consumer involvement.

The results clearly demonstrate that sensory-rich product descriptions are not universally effective. While they significantly increased purchase intention and willingness to pay among highly involved consumers, they were less effective or even counterproductive for low-involvement consumers. This suggests that brands should avoid uniform messaging across all audiences. Instead, marketers should segment their communication based on consumers' involvement levels and tailor product copy accordingly:

For high-involvement consumers like skincare enthusiasts, dermatology-savvy shoppers, rich, evocative language that stimulates mental imagery can enhance emotional engagement and

justify premium pricing. Highlighting sensory features like texture, scent, or feel on the skin may align well with their higher expectations and interest in experiential detail.

For low-involvement consumers, simple, clear, and factual claims may be more effective. These individuals may process information more superficially and prefer cues that reduce uncertainty—such as functional benefits (e.g., "SPF 50," "non-greasy formula") or proof-based claims (e.g., "clinically tested").

Especially in performance- and safety-driven product categories like sunscreen, factual and scientific claims play a critical role. When sensory language is used, it should be carefully balanced with clear, evidence-based information. Since pairing emotional appeal with concrete facts not only enhances credibility but also meets both the emotional and rational expectations of consumers.

Due to the fact that non-sensory descriptions were rated as more effective in reducing uncertainty related to the inability to touch or try products online, marketers should prioritize clarity, specificity and transparency in product descriptions to foster trust and reduce risk perception especially to first-time buyers or low-involvement consumers.

Moreover, marketers should use involvement as a personalization lever. This could be assess through using interactive quizzes, product preference filters or onboarding questions to identify involvement. Additionally, personalized email marketing, dynamic content and/or custom landing pages with sensory storytelling for high-involvement users and concise, performance-driven copy for others should be deployed. Lastly, through incorporating A/B testing companies should determine which copy format works best for different audience segments.

Another recommendation is to use sensory language as a strategy for premium branding. The observed increased WTP for high-involvement consumers exposed to sensory-rich descriptions indicates a strategic opportunity for premium positioning. For high-end or niche product lines, sensory storytelling can enhance perceived exclusivity, emotional value and justification for higher pricing. In contrast, mass-market products may benefit from neutral, consistent messaging that emphasizes familiarity, trust, safety and value.

Lastly, as this study relied on static text descriptions, real-world e-commerce platforms should go further by combining high-definition visuals as well as textual and interactive elements.

Video demonstrations, texture animations and user generated content could help to simulate the sensory experience digitally and provide more holistic brand communication.

7. Conclusion

This thesis examines the effects of sensory-rich versus sensory-poor product descriptions on consumer behavior in the context of online skincare shopping, with a particular focus on how consumer involvement moderates these effects. Drawing on the ELM and sensory marketing theory, the conceptual framework proposed that sensory language would positively influence purchase intention, WTP, perceived product quality, and perceived purchase risk, particularly for highly involved consumers.

The results paint a more complex picture than initially expected. Sensory-rich product descriptions did not significantly impact purchase intention, perceived quality, or relative willingness to pay across the entire sample. However, they did lead to a higher maximum willingness to pay, suggesting that sensory language may increase perceived value under certain conditions.

What stood out most was the interaction between claim type and consumer involvement. Sensory-rich language increased purchase intention but only among highly involved consumers. In contrast, those with low involvement actually slightly preferred the sensory-poor descriptions. This partially supports the original hypotheses and suggests that sensory marketing is not a one-size-fits-all strategy, but it is effective mainly when consumers are already engaged with the product category.

Interestingly, perceived quality was not significantly influenced, and against expectations, the sensory-poor descriptions were actually seen as more helpful in reducing uncertainty. Especially in an online setting where physical product interaction is not possible, consumers may rely more on clear, factual language than on evocative, sensory cues. This challenges the idea that sensory language is always persuasive. For products like sunscreen, where performance and safety matter, people might prefer straightforward, functional details over emotionally rich wording.

On a theoretical level, these findings raise important questions about how we understand involvement in the context of sensory marketing. While the ELM typically links high involvement to analytical thinking, this study suggests that emotional or identity-based

involvement plays an equally important role, especially when it comes to sensory cues. It may be time to expand the involvement construct to account for this more affective, intuitive side of consumer decision-making.

Thus, the study comes with limitations. It relied on convenience sampling, used static written descriptions, and included some single-item measures. Also, it did not track process-level variables like mental imagery or emotional response, which would have added depth. The way perceived risk was split into two distinct components may also have made it harder to see broader patterns in how consumers react to uncertainty in online shopping.

Despite these limitations, the study offers useful insights for both researchers and marketers. For brands, the key takeaway is that the effectiveness of sensory-rich descriptions depends on your audience. Highly involved consumers may be more emotionally engaged and willing to spend more when exposed to sensory cues. Less involved consumers, on the other hand, may respond better to clear, functional information that helps them feel more certain about their choice. A blended approach which combines sensory language with concrete product details might be the most effective strategy.

Future research should take these insights further by exploring multi-sensory formats, diving deeper into emotional vs. cognitive involvement, and applying this framework to other, more hedonic product categories. More refined methods could help uncover how sensory language really works in digital contexts.

Appendices

Appendix A: Survey Questionnaire

CATÓLICA LISBON

Agreement

Dear Participant,

thank you for participating in this survey, which is part of my Master's thesis at Católica Lisbon School of Business and Economics.

My research focuses on hedonic expierences in marketing. Please note that the image displayed in this survey is fictional and any brand names and logos shown are hypothetical.

This survey takes **approx. 3-5 minutes** to complete and all responses are completly anonymous and confidential. The data collected will be solely used for thesis purposes and only aggregated results will be included.

If you have any questions or comments, please contact

me at s-shorbacz@ucp.pt. By proceeding with this survey you are agreeing to voluntarily participate in this study. Please answer as honestly as possible!

Thanks a million for your time!!

Screening Question

Have you ever **purchased** skincare products (e.g., moisturizers, creams, sun screen)?

- ○ Yes
- ○ No

Classifying respondants into low vs high involvement consumers

How do you typically feel about the product category: **skin care products**?

	1 Strongly Disagree	2 Disagree	3 Neither disagree nor agree	4 Agree	5 Strongly agree
I really **enjoy buying** skin care products.	○	○	○	○	○

Whenever I buy skin care it is like giving myself a **present**.	○	○	○	○	○
I am **very interested** in skin care.	○	○	○	○	○
I **could not care less** about skin care.	○	○	○	○	○
The skin care products a **person** buys **reflects who he/she is**.	○	○	○	○	○
The skin care products I buy **describe** the **person I am**.	○	○	○	○	○
It is **very irritating** to **buy wrong** skin care.	○	○	○	○	○
It does **not matter too much** if I make a **mistake** when buying skin care.	○	○	○	○	○
When I buy skin care I can **never be exactly sure** if the **choice** was **right**.	○	○	○	○	○
When I am in front of the skin care section, I always **feel unsure** about which to choose.	○	○	○	○	○

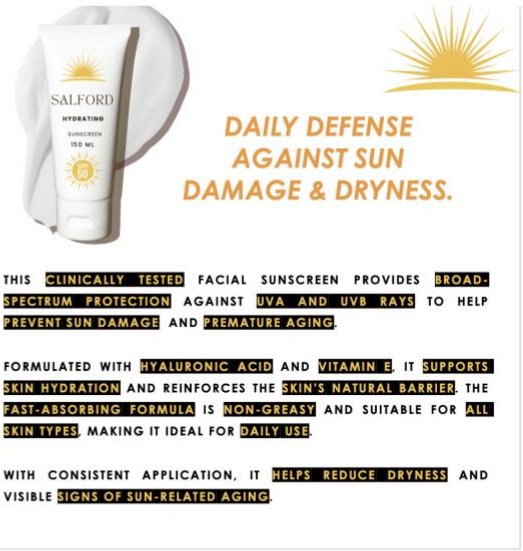
Introducing to experiment

Please imagine you are looking for a **facial sunscreen online** and you came across the product shown on the next page. Consider the product and the descriptions as if you were in a **real online purchase situation**.

Please **pay close attention** to the **product desciption** as the following questions will be based on your personal impression of the description.

Experiment Sensory Poor Claim

Please carefully read the **product description**. The following questions will refer to the content of the product description. *(After 20sec you are able to continue with the questions)*



Experiment Sensory Rich Claim

Please carefully read the **product description.** The following questions will refer to the content of the product description. *(After 20sec you are able to*

continue with the questions)

Check

To what extent do you perceive the product description as **sensory-rich**?

*In this context, 'sensory-rich' refers to how much the description **appeals to the senses, such as smell, taste, touch, and sight.**"*

Not at all 2 3 4 Extremely

Purchase Intention

How **likely** are you to **purchase** this sunscreen online?

Not likely at all 2 3 4 Extremely likely

Willigness to pay

What is the **maximum amount** you are **willing to pay** for this product? Please indicate in EUR.

Compared to **other sunscreens**, I would pay...

Much less Much more

Perceived Quality

To what extent do you believe this sunscreen will **provide effective protection** against the sun?

Not at all 2 3 4 Extremely

To what extent do you think this sunscreen will **meet** your **expectations**?

Not at all 2 3 4 Extremely

To what extent do you believe this sunscreen will provide **long-lasting protection**?

Not at all 2 3 4 Extremely

To what extent does this sunscreen possess the **attributes** you consider **important**, such as **SPF level**, **texture**, and **absorption**?

Not at all 2 3 4 Extremely

To what extent do you believe this sunscreen will deliver **consistent protection** across **repeated use**?

Not at all 2 3 4 Extremely

To what extent do you find the product description **appealing**?

Not at all 2 3 4 Extremely

To what extent do you perceive the product description as **engaging**?

Not at all 2 3 4 Extremely

How would you **rate** the **overall quality** of this sunscreen?

2 3 4

Perceived Risk

To what extent are you concerned that this product will **damage or irritate** your **skin**?

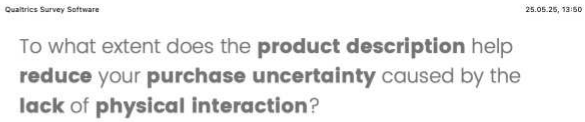
Not at all 2 3 4 Extremely

How **confident** are you that this product is **safe** to use on your **skin**?

Not at all 2 3 4 Extremely

To what extent does the **lack of physical interaction** (e.g., touch or smell) **increase** your **uncertainty** regarding this **purchase**?

Not at all 2 3 4 Extremely



To what extent does the **product description** help **reduce** your **purchase uncertainty** caused by the **lack** of **physical interaction**?

Not at all 2 3 4 Extremely

Demographics

Please indicate your **gender**.

- Male
- Female
- Non-binary / third gender
- Other
- Prefer not to say

How **old** are you? Please indicate in **numbers**.

How much do you **spend** on **average** per **month** on **skincare products**?

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Appendix B: Scale Items and References

a)Purchase Intention Scale (customized scale):

Purchase Intention

How **likely** are you to **purchase** this sunscreen online?

Not likely at all 2 3 4 Extremely likely

b) Willigness to Pay (customized scale):

Willigness to pay

What is the **maximum amount** you are **willing to pay** for this product? Please indicate in EUR.

Compared to **other sunscreens**, I would pay...

c) Perceived Product Quality (based on Garvin's Dimensions of Product Quality, 1987)

Perceived Quality

To what extent do you believe this sunscreen will **provide effective protection** against the sun?

Not at all 2 3 4 Extremely

To what extent do you think this sunscreen will **meet** your **expectations**?

Not at all 2 3 4 Extremely

To what extent do you believe this sunscreen will provide **long-lasting protection**?

Not at all 2 3 4 Extremely

To what extent does this sunscreen possess the **attributes** you consider **important**, such as **SPF level**, **texture**, and **absorption**?

Not at all 2 3 4 Extremely

To what extent do you believe this sunscreen will deliver **consistent protection** across **repeated use**?

Not at all 2 3 4 Extremely

To what extent do you find the product description **appealing**?

Not at all 2 3 4 Extremely

To what extent do you perceive the product description as **engaging**?

Not at all 2 3 4 Extremely

How would you **rate** the **overall quality** of this sunscreen?

2 3 4

d) Perceived Risk (customized scale):

Perceived Risk

To what extent are you concerned that this product will **damage or irritate** your **skin**?

Not at all 2 3 4 Extremely

How **confident** are you that this product is **safe** to use on your **skin**?

Not at all 2 3 4 Extremely

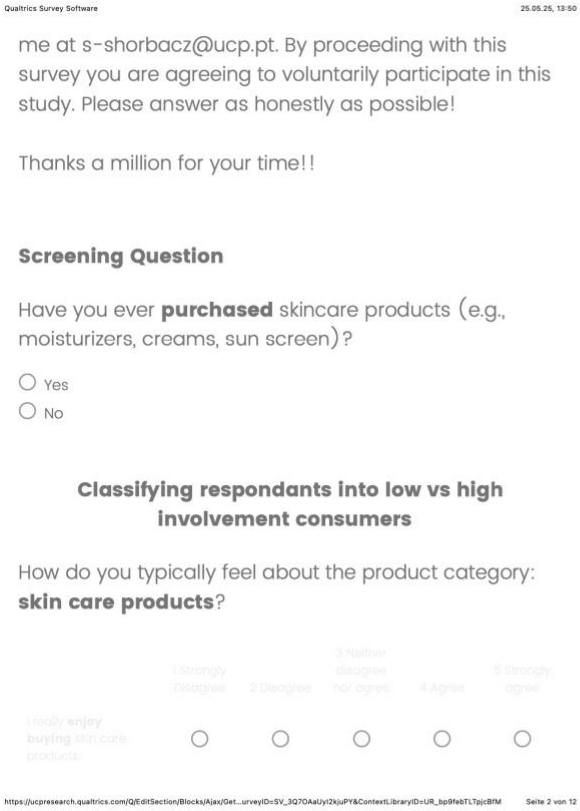
To what extent does the **lack of physical interaction** (e.g., touch or smell) **increase** your **uncertainty** regarding this **purchase**?

Not at all 2 3 4 Extremely

To what extent does the **product description** help **reduce** your **purchase uncertainty** caused by the **lack** of **physical interaction**?

Not at all 2 3 4 Extremely

e) Consumer Involvement (adopted from Guthrie & Kim, 2008 and based on Kapferer & Laurent, 1985):



Appendix C: Purchase Intention

Between-Subjects Factors

		N
1= Sensorial, 2= Non-Sensorial	1,00	65
	2,00	80
0= low involvement 1= high involvement	,00	74
	1,00	71

Descriptive Statistics

Dependent Variable: How likely are you to purchase this sunscreen online?

1= Sensorial, 2= Non-Sensorial	0= low involvement 1= high involvement	Mean	Std. Deviation	N
1,00	,00	2,59	1,305	34
	1,00	3,35	1,199	31
	Total	2,95	1,304	65
2,00	,00	2,88	1,114	40
	1,00	2,57	,984	40
	Total	2,73	1,055	80
Total	,00	2,74	1,206	74
	1,00	2,92	1,143	71
	Total	2,83	1,175	145

Tests of Between-Subjects Effects

Dependent Variable: How likely are you to purchase this sunscreen online?

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	13,208[a]	3	4,403	3,347	,021	,066
Intercept	1162,374	1	1162,374	883,615	<,001	,862
New_Claim_Group_Timer	2,177	1	2,177	1,655	,200	,012
Involvement_group_withoutQ9andQ10	1,950	1	1,950	1,482	,225	,010
New_Claim_Group_Timer * Involvement_group_withoutQ9andQ10	10,188	1	10,188	7,744	,006	,052
Error	185,482	141	1,315			
Total	1358,000	145				
Corrected Total	198,690	144				

a. R Squared = ,066 (Adjusted R Squared = ,047)

Estimated Marginal Means

1. 1= Sensorial, 2= Non-Sensorial

Dependent Variable: How likely are you to purchase this sunscreen online?

1= Sensorial, 2= Non-Sensorial	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1,00	2,972	,142	2,690	3,253
2,00	2,725	,128	2,471	2,979

2. 0= low involvement 1= high involvement

Dependent Variable: How likely are you to purchase this sunscreen online?

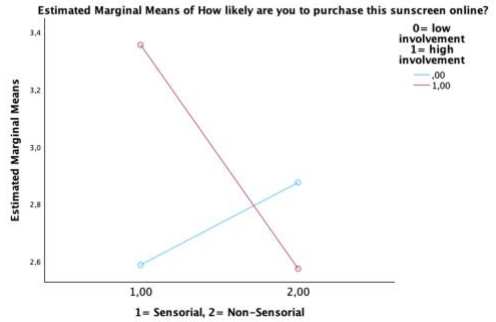
0= low involvement 1= high involvement	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
,00	2,732	,134	2,467	2,996
1,00	2,965	,137	2,694	3,236

3. 1= Sensorial, 2= Non-Sensorial * 0= low involvement 1= high involvement

Dependent Variable: How likely are you to purchase this sunscreen online?

1= Sensorial, 2= Non-Sensorial	0= low involvement 1= high involvement	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1,00	,00	2,588	,197	2,199	2,977
	1,00	3,355	,206	2,948	3,762
2,00	,00	2,875	,181	2,516	3,234
	1,00	2,575	,181	2,216	2,934

Profile Plots



Appendix D: Maximal WTP

Descriptive Statistics

Dependent Variable: Max_Price_Num

1= Sensorial, 2= Non-Sensorial	0= low involvement 1= high involvement	Mean	Std. Deviation	N
1,00	,00	11,9559	7,54820	34
	1,00	16,0968	6,00197	31
	Total	13,9308	7,11396	65
2,00	,00	9,8493	4,76975	40
	1,00	12,7998	7,51500	40
	Total	11,3245	6,42771	80
Total	,00	10,8172	6,24721	74
	1,00	14,2393	7,04384	71
	Total	12,4928	6,84473	145

Tests of Between-Subjects Effects

Dependent Variable: Max_Price_Num

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	695,752[a]	3	231,917	5,404	,002	,103
Intercept	23020,166	1	23020,166	536,441	<,001	,792
New_Claim_Group_Timer	261,481	1	261,481	6,093	,015	,041
Involvement_group_withoutQ9andQ10	450,326	1	450,326	10,494	,001	,069
New_Claim_Group_Timer * Involvement_group_withoutQ9andQ10	12,689	1	12,689	,296	,587	,002
Error	6050,701	141	42,913			
Total	29376,710	145				
Corrected Total	6746,453	144				

a. R Squared = ,103 (Adjusted R Squared = ,084)

Estimated Marginal Means

1. 1= Sensorial, 2= Non-Sensorial

Dependent Variable: Max_Price_Num

1= Sensorial, 2= Non-Sensorial	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1,00	14,026	,813	12,418	15,634
2,00	11,325	,732	9,877	12,772

2. 0= low involvement 1= high involvement

Dependent Variable: Max_Price_Num

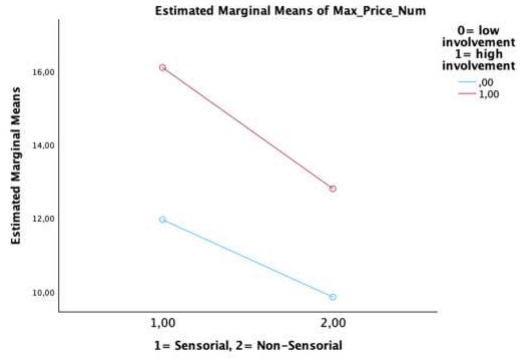
0= low involvement 1= high involvement	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
,00	10,903	,764	9,392	12,413
1,00	14,448	,784	12,899	15,998

3. 1= Sensorial, 2= Non-Sensorial * 0= low involvement 1= high involvement

Dependent Variable: Max_Price_Num

1= Sensorial, 2= Non-Sensorial	0= low involvement 1= high involvement	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1,00	,00	11,956	1,123	9,735	14,177
	1,00	16,097	1,177	13,771	18,423
2,00	,00	9,849	1,036	7,802	11,897
	1,00	12,800	1,036	10,752	14,847

Profile Plots



Appendix E: Relative WTP

Descriptive Statistics

Dependent Variable: Compared to other sunscreens, I would pay... - Much less:Much more

1= Sensorial, 2= Non-Sensorial	0= low involvement 1= high involvement	Mean	Std. Deviation	N
1,00	,00	2,82	1,086	34
	1,00	3,13	,846	31
	Total	2,97	,984	65
2,00	,00	3,00	,641	40
	1,00	2,77	,733	40
	Total	2,89	,693	80
Total	,00	2,92	,872	74
	1,00	2,93	,799	71
	Total	2,92	,834	145

Tests of Between-Subjects Effects

Dependent Variable: Compared to other sunscreens, I would pay... - Much less:Much more

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	2,765[a]	3	,922	1,334	,266	,028
Intercept	1231,628	1	1231,628	1782,952	<,001	,927
New_Claim_Group_Timer	,282	1	,282	,409	,524	,003
Involvement_group_withoutQ9andQ10	,058	1	,058	,084	,772	,001
New_Claim_Group_Timer * Involvement_group_withoutQ9andQ10	2,520	1	2,520	3,648	,058	,025
Error	97,400	141	,691			
Total	1340,000	145				
Corrected Total	100,166	144				

a. R Squared = ,028 (Adjusted R Squared = ,007)

Estimated Marginal Means

1. 1= Sensorial, 2= Non-Sensorial

Dependent Variable: Compared to other sunscreens, I would pay... - Much less:Much more

1= Sensorial, 2= Non-Sensorial	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1,00	2,976	,103	2,772	3,180
2,00	2,888	,093	2,704	3,071

2. 0= low involvement 1= high involvement

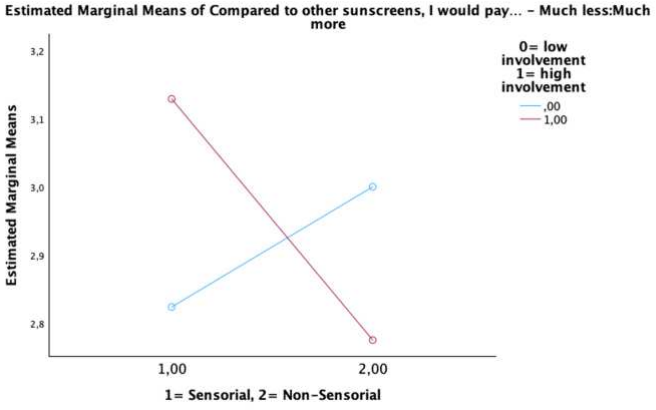
Dependent Variable: Compared to other sunscreens, I would pay... - Much less:Much more

0= low involvement 1= high involvement	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
,00	2,912	,097	2,720	3,103
1,00	2,952	,099	2,755	3,149

3. 1= Sensorial, 2= Non-Sensorial * 0= low involvement 1= high involvement

Dependent Variable: Compared to other sunscreens, I would pay... - Much less:Much more

1= Sensorial, 2= Non-Sensorial	0= low involvement 1= high involvement	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1,00	,00	2,824	,143	2,542	3,105
	1,00	3,129	,149	2,834	3,424
2,00	,00	3,000	,131	2,740	3,260
	1,00	2,775	,131	2,515	3,035



Appendix F: Perceived Quality

Descriptive Statistics

Dependent Variable: PERCEIVED_QUALITY_MEAN

1= Sensorial, 2= Non-Sensorial	0= low involvement 1= high involvement	Mean	Std. Deviation	N
1,00	,00	3,3566	,74819	34
	1,00	3,5927	,81007	31
	Total	3,4692	,78126	65
2,00	,00	3,3281	,59018	40
	1,00	3,3250	,66494	40
	Total	3,3266	,62468	80
Total	,00	3,3412	,66283	74
	1,00	3,4419	,73855	71
	Total	3,3905	,70030	145

Tests of Between-Subjects Effects

Dependent Variable: PERCEIVED_QUALITY_MEAN

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1,634[a]	3	,545	1,113	,346	,023
Intercept	1656,917	1	1656,917	3386,505	<,001	,960
New_Claim_Group_Timer	,786	1	,786	1,606	,207	,011
Involvement_group_withoutQ9andQ10	,486	1	,486	,994	,321	,007
New_Claim_Group_Timer * Involvement_group_withoutQ9andQ10	,513	1	,513	1,048	,308	,007
Error	68,987	141	,489			
Total	1737,484	145				
Corrected Total	70,621	144				

a. R Squared = ,023 (Adjusted R Squared = ,002)

Estimated Marginal Means

1. 1= Sensorial, 2= Non-Sensorial

Dependent Variable: PERCEIVED_QUALITY_MEAN

1= Sensorial, 2= Non-Sensorial	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1,00	3,475	,087	3,303	3,646
2,00	3,327	,078	3,172	3,481

2. 0= low involvement 1= high involvement

Dependent Variable: PERCEIVED_QUALITY_MEAN

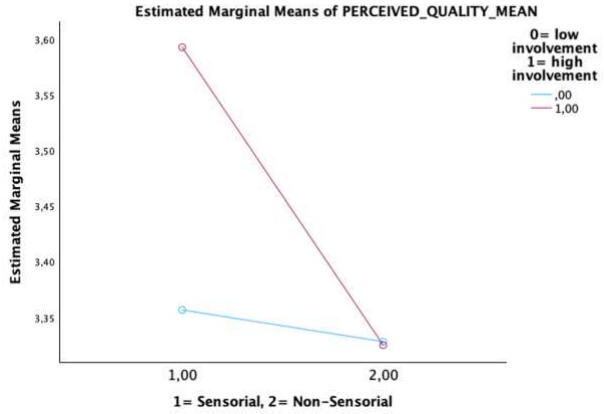
0= low involvement 1= high involvement	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
,00	3,342	,082	3,181	3,504
1,00	3,459	,084	3,293	3,624

3. 1= Sensorial, 2= Non-Sensorial * 0= low involvement 1= high involvement

Dependent Variable: PERCEIVED_QUALITY_MEAN

1= Sensorial, 2= Non-Sensorial	0= low involvement 1= high involvement	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1,00	,00	3,357	,120	3,119	3,594
	1,00	3,593	,126	3,344	3,841
2,00	,00	3,328	,111	3,109	3,547
	1,00	3,325	,111	3,106	3,544

Profile Plots



Appendix G: Risk Skin

Descriptive Statistics

Dependent Variable: Risk_Skin

1= Sensorial, 2= Non-Sensorial	0= low involvement 1= high involvement	Mean	Std. Deviation	N
1,00	,00	2,5147	,89176	34
	1,00	2,3710	1,00803	31
	Total	2,4462	,94424	65
2,00	,00	2,4125	,83118	40
	1,00	2,5125	,74668	40
	Total	2,4625	,78666	80
Total	,00	2,4595	,85511	74
	1,00	2,4507	,86666	71
	Total	2,4552	,85780	145

Tests of Between-Subjects Effects

Dependent Variable: Risk_Skin

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	,545[a]	3	,182	,243	,866	,005
Intercept	861,910	1	861,910	1152,876	<,001	,891
New_Claim_Group_Timer	,014	1	,014	,019	,892	,000
Involvement_group_withoutQ9andQ10	,017	1	,017	,023	,880	,000
New_Claim_Group_Timer * Involvement_group_withoutQ9andQ10	,532	1	,532	,712	,400	,005
Error	105,414	141	,748			
Total	980,000	145				
Corrected Total	105,959	144				

a. R Squared = ,005 (Adjusted R Squared = -,016)

Estimated Marginal Means

1. 1= Sensorial, 2= Non-Sensorial

Dependent Variable: Risk_Skin

1= Sensorial, 2= Non-Sensorial	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1,00	2,443	,107	2,231	2,655
2,00	2,463	,097	2,271	2,654

2. 0= low involvement 1= high involvement

Dependent Variable: Risk_Skin

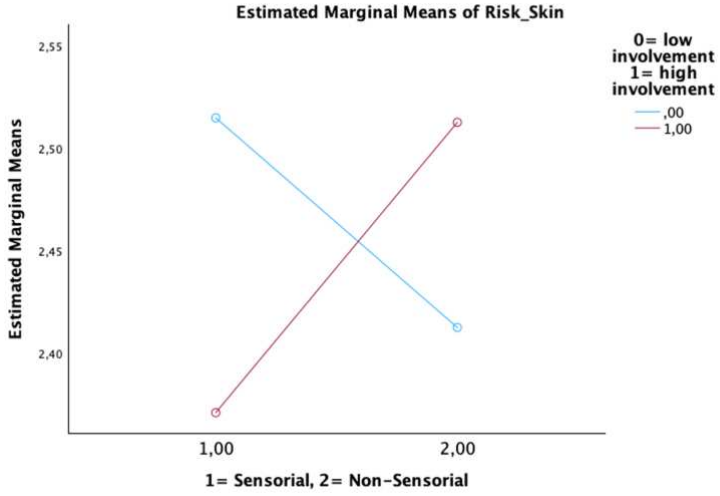
0= low involvement 1= high involvement	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
,00	2,464	,101	2,264	2,663
1,00	2,442	,103	2,237	2,646

3. 1= Sensorial, 2= Non-Sensorial * 0= low involvement 1= high involvement

Dependent Variable: Risk_Skin

1= Sensorial, 2= Non-Sensorial	0= low involvement 1= high involvement	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1,00	,00	2,515	,148	2,222	2,808
	1,00	2,371	,155	2,064	2,678
2,00	,00	2,413	,137	2,142	2,683
	1,00	2,513	,137	2,242	2,783

Profile Plots



Appendix H: Risk due to lack of physical interaction

Descriptive Statistics

Dependent Variable: To what extent does the lack of physical interaction (e.g., touch or smell) increase your uncertainty regarding this purchase?

1= Sensorial, 2= Non-Sensorial	0= low involvement 1= high involvement	Mean	Std. Deviation	N
1,00	,00	3,24	,923	34
	1,00	3,29	1,243	31
	Total	3,26	1,079	65
2,00	,00	3,40	1,033	40
	1,00	3,72	,933	40
	Total	3,56	,992	80
Total	,00	3,32	,981	74
	1,00	3,54	1,093	71
	Total	3,43	1,039	145

Estimated Marginal Means

1. 1= Sensorial, 2= Non-Sensorial

Dependent Variable: To what extent does the lack of physical interaction (e.g., touch or smell) increase your uncertainty regarding this purchase?

1= Sensorial, 2= Non-Sensorial	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1,00	3,263	,128	3,010	3,516
2,00	3,563	,115	3,334	3,791

2. 0= low involvement 1= high involvement

Dependent Variable: To what extent does the lack of physical interaction (e.g., touch or smell) increase your uncertainty regarding this purchase?

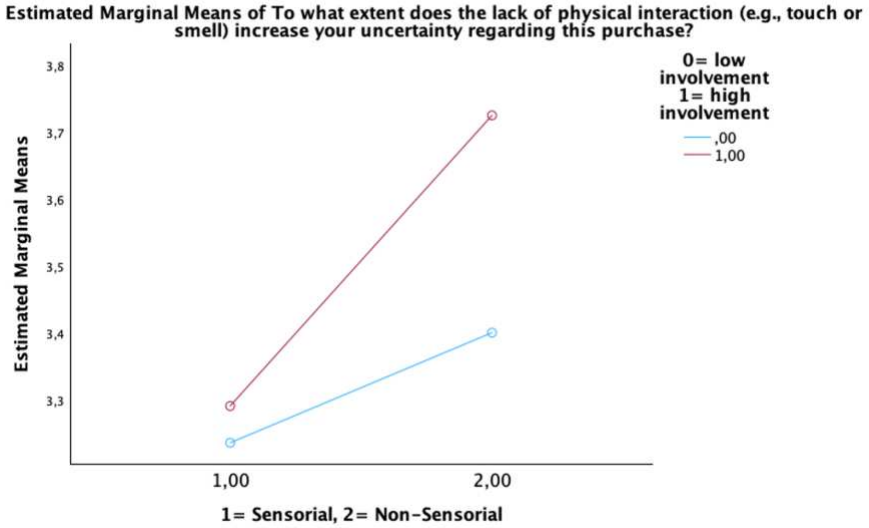
0= low involvement 1= high involvement	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
,00	3,318	,120	3,080	3,556
1,00	3,508	,123	3,264	3,752

3. 1= Sensorial, 2= Non-Sensorial * 0= low involvement 1= high involvement

Dependent Variable: To what extent does the lack of physical interaction (e.g., touch or smell) increase your uncertainty regarding this purchase?

1= Sensorial, 2= Non-Sensorial	0= low involvement 1= high involvement	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1,00	,00	3,235	,177	2,886	3,585
	1,00	3,290	,185	2,924	3,657
2,00	,00	3,400	,163	3,078	3,722
	1,00	3,725	,163	3,403	4,047

Profile Plots



Appendix I: Compensating risk through description

Descriptive Statistics

Dependent Variable: Q18_reversed

1= Sensorial, 2= Non-Sensorial	0= low involvement 1= high involvement	Mean	Std. Deviation	N
1,00	,00	2,6765	1,09325	34
	1,00	2,7097	1,16027	31
	Total	2,6923	1,11696	65
2,00	,00	3,2500	1,00639	40
	1,00	2,9000	,98189	40
	Total	3,0750	1,00347	80
Total	,00	2,9865	1,07898	74
	1,00	2,8169	1,05978	71
	Total	2,9034	1,06929	145

Estimated Marginal Means

1. 1= Sensorial, 2= Non-Sensorial

Dependent Variable: Q18_reversed

1= Sensorial, 2= Non-Sensorial	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1,00	2,693	,131	2,434	2,952
2,00	3,075	,118	2,842	3,308

2. 0= low involvement 1= high involvement

Dependent Variable: Q18_reversed

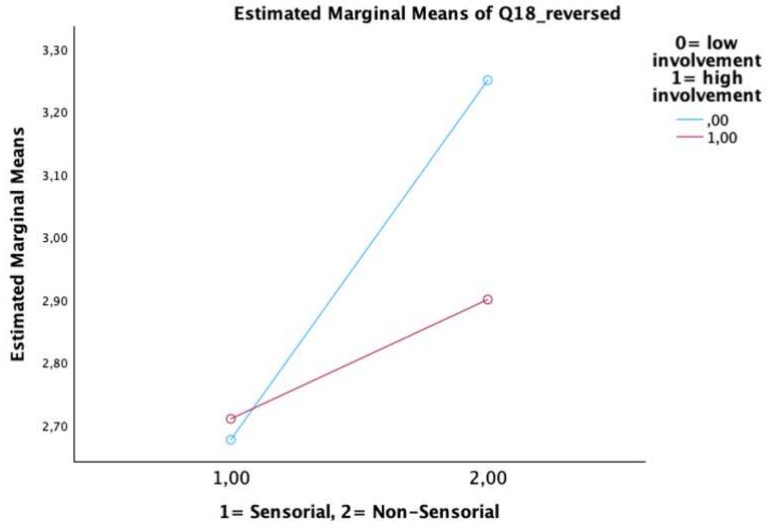
0= low involvement 1= high involvement	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
,00	2,963	,123	2,720	3,206
1,00	2,805	,126	2,555	3,054

3. 1= Sensorial, 2= Non-Sensorial * 0= low involvement 1= high involvement

Dependent Variable: Q18_reversed

1= Sensorial, 2= Non-Sensorial	0= low involvement 1= high involvement	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1,00	,00	2,676	,181	2,319	3,034
	1,00	2,710	,189	2,335	3,084
2,00	,00	3,250	,167	2,920	3,580
	1,00	2,900	,167	2,570	3,230

Profile Plots



Appendix J: Codebook

Variable Name	Lable / Question	Type	Scale / Value
claim_type	Type of product description shown	Nominal	1 = sensory-rich 2 = sensory-poor
Involvement_level	Consumer Involvement based on median split of CIP scale	Nominal	0 = low involvment 1 = high involvement
Purchase_intention	How likely are you to purchase this sunscreen online?	Scale	1= Not at all 5= Extremly
Max_WTP	What is the maximum amount you are willing to pay for this product? Please indicate in EUR.	Scale	Numeric value in EUR
Relative_WTP	Compared to other sunscreens, I would pay… - Much less:Much more	Scale	1= much less 5= much more
Perceived_quality_score	Median of perceived quality	Scale	1 = Not at all 5 = Extremley
Risk_skin	Median of Q15: To what extent are you concerned that this product will damage or irritate your skin? And Q16_reversed: How confident are you that this product is safe to use on your skin?	Scale	1= Not at all 5= Extremly
Risk_touch	To what extent does the lack of physical interaction (e.g., touch or smell) increase your uncertainty regarding this purchase?	Scale	1= Not at all 5= Extremly
Rick_reduction	Reversed: To what extent does the product description help reduce your purchase uncertainty caused by the lack of	Scale	1= Not at all 5= Extremly

	physical interaction?		
Gender	Gender of participant	Nominal	1= Female 2= Male 3= Non-binary
Age	How old are you?	Scale	Numeric value
Spending_Skincare	How much do you spend on average per month?	Ordinal	1= less than 10 EUR 2= 10-25 EUR 3= 26-40 EUR 4= 41-55 EUR 5= 56+ EUR

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