



ASSOCIAÇÃO DE POLITÉCNICOS DO NORTE (APNOR)
INSTITUTO POLITÉCNICO DE BRAGANÇA

**The Power of Sensory Marketing on Consumer Behaviour:
a case study on Textile Sector**

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Supervisors:

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Bragança, October, 2025.



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Abstract

In today's increasingly competitive market, organisations constantly search for innovative ways to engage consumers and stand out. In the important and wide topic of Marketing, Sensory Marketing has come up as a powerful tool, especially in industries where sensory experiences can significantly influence purchasing behaviour. The textile sector, with its emphasis on touch, sight, and other sensory stimuli, offers a unique context to explore the effectiveness of such marketing strategies. It is based on this idea that leads us to the aim of this study, to focus on understanding the role those various sensory elements such as touch, scent, sight, and sound play in shaping consumer behaviour. Specifically, it seeks to determine which sensory factors have the most considerable influence on driving purchase intentions and enhancing the overall shopping experience, having as a starting question "which sensory stimuli most effectively impact purchasing decisions in textile retail environments?". To answer this, a quantitative research approach was adopted, focusing on how sensory elements such as touch, sight, scent, and sound affect consumer purchase decisions. For data collection, the structured questionnaire survey was the technique used, targeting consumers who frequently shop for textiles both in-store and online. Respondents were asked to evaluate their sensory experiences and how these influenced their buying decisions. The data was then processed and analysed using SPSS software, allowing for a detailed examination of trends, correlations, and the relative impact of different sensory stimuli on purchasing behaviour. The findings of this research will provide valuable insights for textile retailers looking to optimise their sensory marketing strategies, helping them stand out in a competitive environment and better meet the evolving needs of their customers.

Keywords: Marketing, Sensory Marketing, Consumer Behaviour, Textile Sector, Consumer Engagement

Resumo

No mercado cada vez mais competitivo de hoje, as organizações estão constantemente à procura de formas inovadoras de atrair os consumidores e destacar-se da concorrência. No importante e amplo conceito de marketing, o marketing sensorial surgiu como uma ferramenta poderosa, especialmente em setores onde as experiências sensoriais podem influenciar significativamente o comportamento de compra. O setor têxtil, com a sua ênfase no toque, na visão e noutros estímulos sensoriais, oferece um contexto único para explorar a eficácia dessas estratégias de marketing. É com base nessa ideia que chegamos ao objetivo deste estudo: concentrar-nos em compreender o papel que vários elementos sensoriais como o tato, o olfato, a visão e a audição desempenham na modelagem do comportamento do consumidor. Especificamente, procura determinar quais fatores sensoriais têm a influência mais considerável na orientação das intenções de compra e na melhoria da experiência geral de compra, tendo como questão inicial “Quais estímulos sensoriais impactam mais efetivamente as decisões de compra em ambientes de retalho têxtil?”. Para abordar esta investigação, foi utilizada uma metodologia de investigação quantitativa. Para a recolha de dados, foi utilizada a técnica de inquérito estruturado, direcionado a consumidores que compram frequentemente têxteis tanto em lojas físicas como online. Os inquiridos foram convidados a avaliar as suas experiências sensoriais e como estas influenciaram as suas decisões de compra. Os dados foram então processados e analisados utilizando o software SPSS, permitindo uma análise detalhada das tendências, correlações e do impacto relativo de diferentes estímulos sensoriais no comportamento de compra. Os resultados desta investigação fornecerão informações valiosas para os retalhistas têxteis que procuram otimizar as suas estratégias de marketing sensorial, ajudando-os a destacar-se num ambiente competitivo e a satisfazer melhor as necessidades em constante evolução dos seus clientes.

Palavras-chave: Marketing, Marketing Sensorial, Comportamento do Consumidor, Setor Têxtil, Envolvimento do Consumidor

"Our greatest weakness lies in giving up. The most certain way to succeed is always to try just one more time."

Thomas A. Edison

Table of Contents

| | |
|--|----|
| List of Figures | ix |
| List of Tables | x |
| Introduction | 1 |
| 1. Literature Review | 3 |
| 1.1. Marketing | 3 |
| 1.1.1. Sensory Marketing Overview | 3 |
| 1.1.2. Multisensory Marketing Experience | 4 |
| 1.1.3. Advantages and Disadvantages of Sensory Marketing | 5 |
| 1.2. Consumer Behaviour | 7 |
| 1.2.1. Consumer in Store | 7 |
| 1.2.2. Textile Industry Context | 8 |
| 1.3. Influence of Senses in Store | 9 |
| 1.3.1. Sight | 9 |
| 1.3.2. Touch | 10 |
| 1.3.3. Scent | 11 |
| 1.3.4. Sound | 12 |
| 1.3.5. Taste | 13 |
| 2. Research Methodology | 14 |
| 2.1. Objective of the study and Research Hypotheses | 14 |
| 2.2. Research Methodology | 15 |
| 2.3. Description of Data Collection | 16 |
| 2.4. Description of Data Analysis | 17 |
| 2.5. Population vs. Sample | 18 |
| 3. Empirical Results Analysis | 20 |
| 3.1. Sample Characterisation/Profile | 20 |
| 3.2. Descriptive Analysis | 21 |

| | |
|--|----|
| 3.3. Inferential Analysis | 30 |
| 4. Discussion of Results | 47 |
| Conclusions, Limitations and Future Research Lines | 49 |
| Managerial Implications..... | 50 |
| Future Research..... | 50 |
| References | 51 |
| Appendix 1..... | 54 |

List of Figures

| | |
|--|----|
| Figure 1. Main shopping channel (n=303)..... | 22 |
| Figure 2. Ever been influenced by store scent (n=303) | 24 |
| Figure 3. Spend more time in-store with pleasant ambiance (n=303) | 24 |
| Figure 4. Probability to buy due to enhanced sensory information online (n=303)..... | 26 |
| Figure 5. Influence to revisit shop due to sensory stimuli (n=303)..... | 26 |
| Figure 6. Preference for multisensory stores (n=303)..... | 27 |
| Figure 7. Recommended textile store due to sensory experience (n=303) | 28 |
| Figure 8. More encouraged to purchase when multiple-sensory experience applied (n=303) | 29 |

List of Tables

| | |
|---|----|
| Table 1. Summary table - Senses | 13 |
| Table 2. Characteristics of Sample (n=303)..... | 20 |
| Table 3. Characteristics of Sample (n=303) - continuation | 21 |
| Table 4. Cronbachs' alpha summary | 22 |
| Table 5. Frequencies of Factors purchasing (n=303) | 23 |
| Table 6. Overview sensory stimuli and behaviour in store..... | 23 |
| Table 7. Frequency of online shopping, main challenges and factor most affecting decisions (n=303) | 25 |
| Table 8. Overview of online lack of sensory stimuli (n=303)..... | 25 |
| Table 9. Sensory experiences contribution to brand loyalty | 27 |
| Table 10. Overview of sence that most affect return to textile store (n=303) | 27 |
| Table 11. Extent of agreement that stores with multisensory > uni-sensory (n=303)..... | 28 |
| Table 12. Overview sensory marketing perceptions (n=303)..... | 29 |
| Table 13. Consideration- female gender has greater sensory awareness in retail (n=303) | 29 |
| Table 14. Overview improvement of in-store experience (n=303) | 30 |
| Table 15. Pearson Correlation - H1..... | 31 |
| Table 16. Normality tests - H2A | 32 |
| Table 17. Non Parametric test - Kruskal-Wallis - H2A | 32 |
| Table 18. Kruskal-Wallis - H2A | 32 |
| Table 19. Spearman Correlation - H2B | 33 |
| Table 20. Normality tests - H3..... | 34 |
| Table 21. Spearman Correlation - H3 | 34 |
| Table 22. Normality tests - H4..... | 35 |
| Table 23. Non Parametric test – Kruskal-Wallis - H4 | 36 |
| Table 24. Kruskal-Wallis - H4..... | 36 |
| Table 25. Non Parametric test - Mann-Whitney - H4 | 37 |
| Table 26. Post-hoc Mann-Whitney - H4 | 37 |
| Table 27. Non Parametric test - Mann-Whitney - H4 | 37 |
| Table 28. Post-hoc Mann-Whitney - H4 | 38 |
| Table 29. Non Parametric test - Mann-Whitney - H4 | 38 |
| Table 30. Post-hoc Mann-Whitney - H4 | 38 |
| Table 31. Non Parametric test - Mann-Whitney - H4 | 39 |
| Table 32. Post-hoc Mann-Whitney - H4 | 39 |
| Table 33. Normality tests - H5..... | 40 |
| Table 34. Non Parametric test – Kruskal-Wallis - H5..... | 40 |
| Table 35. Kruskal-Wallis - H5..... | 40 |

| | |
|--|----|
| Table 36. Normality tests - H6..... | 41 |
| Table 37. Non Parametric test – Kruskal-Wallis - H6..... | 42 |
| Table 38. Kruskal-Wallis - H6..... | 42 |
| Table 39. Non Parametric test – Levene's - H7 | 43 |
| Table 40. Levene's test - H7..... | 43 |
| Table 41. Normality tests - H8..... | 44 |
| Table 42. Spearman Correlation - H8 | 45 |
| Table 43. Summary table of hypothesis..... | 45 |
| Table 44. Summary table of hypothesis - continuation | 46 |

Introduction

In today's global environment, physical retail shops are facing great difficulties in competing with digital retailers. However, many consumers are still making their purchases in traditional physical retail shops. Retailer companies attach greater significance to their store environment and marketing promotions. The majority of a buying decision is made at the point of sale, which proves the power of sensory marketing promotion in-store. The main goal of a store's marketing communication is to focus on promote a sensory experience that influence to buyer's purchase decision. Sensory marketing refers to the use of all sensory senses, sight, sound, scent, touch, and taste; to influence emotional responses and strengthen consumer connection with brands and products. Although the concept has been increasingly adopted in retail sectors such as food and hospitality, its association in the textile industry remains less explored. This study was therefore developed to examine how sensory stimuli affect consumer behaviour within textile retail environments, both in-store and online, identifying which sensory cues have the greatest influence on purchasing decisions and brand loyalty.

The general objective of this research is to analyse the relation of sensory marketing on consumer behaviour in the textile sector. To achieve this goal, three specific objectives were defined: (1) to explore how different stimuli influence consumer decision-making when purchasing textile products; (2) to assess the role of multi-sensory marketing strategies in enhancing customer satisfaction and brand loyalty; and (3) to evaluate the effectiveness of sensory marketing in physical retail settings compared to online platforms. These objectives guided the main research question: Which sensory stimuli most effectively impact purchasing decisions in textile retail environments?

The study followed a quantitative research methodology. Data collection was achieved through a structured questionnaire (see Appendix 1) targeting consumers frequenting textile purchases both in-store and online, it was also possible using a snowball sampling method. The collected data were analysed using the Statistical Package for the Social Sciences (SPSS) software, applying both descriptive and inferential statistical techniques to identify significant relationships between variables and to validate the proposed hypotheses by examining trends, correlations, and the relative associations of different sensory stimuli on purchasing behavior.

This dissertation is structured into five main chapters. Following this introduction, Chapter 2 presents the literature review, outlining the theoretical foundations of sensory marketing, its dimensions, and its influence on consumer behaviour. Chapter 3 describes the research methodology, including the data collection process, sampling strategy, and analytical procedures. Chapter 4 presents and discusses the results obtained from the statistical analyses, linking them to the theoretical framework and research objectives. Finally, Chapter 5 concludes the study by summarising the main findings,

discussing managerial implications, and suggesting future research directions. It is also included an appendix (appendix 1) with the formulated questionnaire.

The results of this research aim not only to provide textile retailers with valuable information to further enhance their sensory marketing strategies, but also to assist them in distinguishing themselves in a competitive market and better meeting the evolving needs of their customers. This introduction sets out the trajectory of the dissertation, laying the ground for a comprehensive exploration of the role of sensory marketing in consumer engagement in the textile sector.

1. Literature Review

1.1. Marketing

Marketing, in a direct and objective definition, is recognising human needs and wants and turning them into profit whether through a service or a product, but always ensuring customer's satisfaction. Nowadays, it is an essential practice to the organisations that want to and stand out its competitiveness, due to the complex and wide environment within the marketplaces, that are constantly changing trends. Marketing, in its essence, encompasses the strategies and processes by which companies create, communicate, deliver, and exchange offerings that have value for customers, clients, partners, and society at large. It is a dynamic field that continually adapts to technological advancements and shifts in consumer behaviour, aiming to engage consumers' senses to influence their perception, judgment, and behaviour (Doucé & Adams, 2020).

Marketing campaigns and strategies that capitalise on consumer behaviour and decision-making are being implemented with increasing performance and frequency by creative companies. By doing so, these brands are able to personalise their marketing campaigns, which increases overall brand presence, customer acquisition and conversion rates, thereby also becoming more efficient in terms of marketing expenses.

These companies can better position themselves against their competitors and make better use of their marketing budgets thanks to this personalisation. Personalised marketing that involves all the senses relevant to the brand is known as sensory marketing. Brands can trigger specific feelings in customers through sensory marketing, which can lead to feelings and moods that are more receptive to making purchases. This approach recognises that consumers' perceptions, emotional states, and behaviours are significantly influenced by multisensory stimuli present within a retail environment (Li et al., 2022, Ustazah et al., 2025).

1.1.1. Sensory Marketing Overview

In the current competitive business landscape, companies are always looking for new methods to attract and maintain customer loyalty, since the conventional marketing approaches are no longer attracting and maintaining customers the same way it used to do.

Marketing to the consumer senses is called sensory marketing. This method understands that consumers connect with brands not only through logic but also through their senses, which trigger emotions, improve memory and influence actions and behaviour. Indeed, sensory marketing is defined by Krishna (2011) and Shahid et al. (2022), as “marketing that engages the consumers' senses and affects their perception, judgment, and behaviour” (p.1401). Therefore, it is possible to

verify that sensory marketing goes beyond traditional marketing, not only implementing advertising methods that use visual and auditory elements to capture and influence consumers, but also incorporating tactile, olfactory, and gustatory elements, thus providing a more immersive and memorable experience, building stronger brand loyalty.

As the digital era continues to shift consumer behaviour and interaction patterns, brands are increasingly integrating sensory elements into their storytelling and branding strategies to keep up with these changes, as well as in their physical shops, where this experience is most appreciated by the consumer. This strategy acknowledges that, despite the prevalence of online shopping, tangible in-store experiences remain crucial for fostering deeper consumer engagement and influencing purchasing decisions (Rathnayaka, 2022). Sensory marketing in physical stores potentially has a greater impact on consumers, when compared to online markets, as it has the possibility to include the experience of customer's interaction with the product or service, engaging all five senses and thus having the advantage to have more influencing power into the last minute of a purchase decision. Although there are different perspectives on sensory marketing, it can be seen that it has shifted the focus from traditional methods to a more engaging approach that is more centred on personalising the consumer experience, with the aim of making consumers more easily influenced to change their behaviour in relation to their purchasing decisions, as well as increasing their satisfaction.

1.1.2. Multisensory Marketing Experience

In the complex system of human perception, the senses are like channels through which we connect with and understand the world around us. The way in which different senses work together to create human perception is the focus of the multi-sensory experience. Understanding the mechanisms underlying multisensory perception is crucial for diverse fields. This strategic approach recognizes that engaging the five senses (sight, sound, taste, touch, and smell) is fundamental to creating a holistic customer experience and fostering a deeper connection with a product or brand (Torabi et al., 2021).

At its core, a multisensory experience is a reflection of the remarkable versatility and adaptability of the human mind. Since multisensory marketing accelerates the process of creating value for customers and influences their behaviour and decision-making, it validates the idea of being recognised as one of the innovation processes within this field, and it is an essential part of everyday life of marketers and organisations. Hence, this approach can be seen to an increasing extent in physical retail with the intention of enhancing customer loyalty and consequently achieving competitive advantage. Multisensory marketing goes far beyond the importance given to the features of the product or service, as it successfully attracts and retains consumers who become committed and attached to the brand and who eventually become frequent customers, which increases the competitive advantage in the market.

In a 2022 publication, Shahid et al., refer that multisensory marketing has become popular for creating engaging brand experiences combining sensory elements such as sight, sound, smell, touch and taste. This approach is particularly pertinent for luxury brands, where a sensory product experience is an integral feature of their brand strategies (p.1400). The use of this approach creates a bond with the consumers to a deeper level, and the final outcome becomes the new perception of the brand image to each individual. This new perception is created through all sensory stimuli, and brands that introduce this method are able to surpass those that do not, as the integration of all the senses into the experience created allows them to influence each other, ultimately shaping the consumer's overall perception.

1.1.3. Advantages and Disadvantages of Sensory Marketing

Although sensory marketing has many benefits, such as increasing customer engagement and reinforcing experiences at the point of sale, it can occasionally have some important drawbacks that are mandatory to mention. Some of these negative and positive aspects of sensory marketing are listed below. A critical analysis of these aspects is essential for marketers to strategically utilise sensory elements, ensuring that they enhance, rather than damage, the overall consumer experience and brand perception, leading to loyalty.

For instance, while a well-executed multisensory campaign can significantly enhance brand recall and emotional connection, poorly integrated sensory cues can lead to sensory overload or even negative associations (Bhatia et al., 2021).

Sensory marketing offers several advantages that can significantly increase consumer engagement and brand performance. Firstly, is a dynamic strategy that significantly enhances emotional connection, it creates greater brand loyalty by forming emotional bonds with consumers through the experiences provided. As Rathnayaka (2022) points out, "the sensory brand experience is the process of stimulating human five senses through brand related stimuli which influence consumers in making consumption related decisions and judgments and ultimately makes an emotional attachment towards the brand" (p.6). The authors Johnson (2018) and Lee, et al. (2019) and Rathnayaka (2022) stated that multisensory marketing experience "helps to create unforgettable wow moments that enhance the consumer experiences and the satisfaction" (p.7). This emotional bonding is crucial for brand loyalty.

It also can improve purchase intent and satisfaction, by influencing purchasing decisions stimulating the senses, especially in retail and hospitality environments Dzhandzhugazova et al. (2016) and Hulten (2011) and Krishna (2012) and Smith et al. (2016) and Rathnayaka (2022) suggest that a multisensory approach "create customer value, experience and facilitate the customer value creation process because it influence their perception, judgment as well as the behavior"(p.7).

Furthermore, it may influence on consumer behavior, and turn into a powerful tool for marketers, by making store environments more appealing to consumers can be more effective than traditional approaches. Verhoef et al., (2009) ; Rathnayaka (2022) argued that, “if brands can provide a sensory rich experiences for the consumers when they are engaging with the brand, there is a huge possibility for the customers to have favourable behavioural responses for the retailers” (p.8). It is also considered that a great sensory experience can attach consumers (Rathnayaka, 2022).

Lastly, it aids in brand differentiation, brands that offer unique sensory experiences stand out in the market because they are not easily forgotten. Rathnakaya (2022) emphasises that “the experience received for the customer becomes more and more memorable if the brands can provides an emotional experience for the customers” (p.6), and it is also supported by Iglesias, et al. (2019) and Kumar, et al. (2013) and Rathnayaka (2022) that “implementation of the sensory brand experiences in the service environment will strengthen the competitiveness and the brand equity” (p.8).

Despite its benefits, sensory marketing also presents several challenges that need to be carefully managed to avoid undesired outcomes. One of the primary concerns is that it creates sensory overload and discomfort, with an excessive or poorly coordinated sensory stimuli can overwhelm or irritate consumers, leading to negative experiences and brand associations. As Gulati and Roy (2021) said, “it is also necessary to note, in addition, that a mere one sensory input is not always enough” (p.736), implying that consistency and balance among sensory inputs are crucial. Krupta (2023) warns that “strong intensity of sensory involvement can be destructive in the consumer-brand relationship, but too weak intensity can lead to consumers not finding the brand worthy of attention” (p.48). This highlights the delicate balance required in sensory marketing to avoid discomfort and ensure a positive consumer experience.

Another significant challenge are the high implementation costs, associated with creating multisensory environments. These environments often require substantial investment in technology, design, and ongoing maintenance. This financial burden can be restrictive for some businesses, especially smaller ones, and must be carefully weighed against the potential return on investment.

It also presents some ethical and privacy concerns, since manipulating consumer emotions through sensory stimuli raises ethical questions, and some consumers may feel their autonomy is compromised. Some consumers may feel that their autonomy is compromised, leading to concerns about privacy and manipulation. This ethical dimension adds a layer of complexity to sensory marketing strategies, requiring businesses to consider the moral implications of their tactics. For Gao and Lan (2020); Rathnayaka (2022), “there should have to have a good consistency among the brand stimuli and the customer unless, the provided brand stimuli will not be worked to deliver the consumers a memorable sensory brand experience for the customers” (p.16).

Last but not least, it also presents some limited effectiveness in digital/virtual contexts, as sensory marketing is less effective online, where only visual and auditory senses are easily engaged, and virtual influencers may lack credibility in transmitting certain sensory experiences. The challenge of transmitting certain sensory experiences through virtual means is highlighted by Shreya Kaushik and

Nilesh Gokhale (2021), who discuss the need for multisensory technology to enhance online product engagement and purchasing decisions. This suggests that while sensory marketing can be adapted for online use, it may not be as impactful as in physical environments.

Sensory marketing can significantly improve consumer experiences and brand loyalty, but it must be carefully managed to avoid negative effects, high costs, and ethical issues.

1.2. Consumer Behaviour

To fulfil necessities and desires, people, being as an individual or within a group cross through various phases such as selection, purchasing, using or discarding products, services or even experiences and ideas. The analysis of this process is called consumer behaviour. In companies, marketers should have a great understanding of this process in order to develop strategies to match the consumer's preferences and thus influence their purchasing decision-making.

In order to achieve this, the implementation of sensory marketing in-store is increasingly present, because even with technological advances online, it's the small or even large details in physical stores that go unnoticed to consumers, but which are easier to apply for control and influence customers when looking for purchasing a product. Physical stores offer a unique advantage by engaging multiple senses (sight, sound, smell, touch) that online shops cannot fully replicate, which has been shown to affect emotional bonds, satisfaction, and purchase decisions (Jiménez-Marín et al., 2022).

Especially in textile retail shops where it is possible to combine this marketing, creating a multi-sensory environment that appeals to the public. Research into multisensory evaluation of textile products shows that texture, aesthetics, and other sensory product properties significantly influence consumer preferences and emotional responses (Tekin & Kanat, 2022).

1.2.1. Consumer in Store

Consumer experiences in the physical retail environment are still heavily influenced by sensory interactions. It is known that: the possibility of touching products can even lead to impulsive purchases. At the same time, this fact is one of the answers to the question why some products are much more difficult to sell without physical contact and thus, for example, via the Internet, compared to products that can be caught or tested (Burgoon et al, 2021; Pollák et al.,2021, p.4). Unlike online shopping, in-store shopping continues to offer consumers a richer sensory experience, allowing them to directly assess the texture, weight and overall quality of products. The observed limitations for online shopping are completely related to the lack of a multisensory experience since, in this case, only the visual sense can be stimulated and not always is enough for the final purchasing decision. This absence of physical touch, smell, and instant inspection restricts consumer decision-making, often reducing opportunities for impulse purchases.

For retailers and marketers, this impasse creates an urgent challenge: developing innovative tools to replicate the sensory cues of the in-store experience into digital environments, while preserving consumer confidence. “Consumers are also likely to become accustomed to new ways of shopping. Grocers will then need to determine how to make the online shopping more similar to in-person shopping such that it will encourage impulse purchases” (Roggeveen & Sethuraman, 2020, p.169).

However, applications of new and innovative ideas and ways to shop online also have their perks, since nowadays it is very easy to fall into scams related to the veracity of the goods, and even the quality. “The growth of online retailing has also given rise to growth in online piracy or selling of fake goods, because it is more difficult to inspect a product thoroughly in online as opposed to offline shops” (Roggeveen & Sethuraman, 2020, p.170). So, the final idea could fall into the opposite direction, bringing the online experience into the physical shops.

1.2.2. Textile Industry Context

The textile and fashion industry offers a particularly relevant context for exploring the role of sensory marketing, especially multisensory marketing, since consumers' purchasing decisions are often motivated and influenced by tactile, visual and even auditory and olfactory assessments without the consumer's own awareness. Given that certain product properties, such as softness, thickness, elasticity and drape of fabrics, can only be fully appreciated through physical contact, the sense of touch becomes indispensable in evaluating clothing and making purchasing decisions (Jang & Ha, 2021).

Textiles are closely linked to the body and, therefore, perceptions of comfort, quality and fit are deeply rooted in the sensory experience. Unlike many other consumer goods, the textile industry can apply a multisensory experience in which most of the five main senses are used, with endless opportunities to influence and, consequently, build consumer loyalty. This inherent multisensory nature of textile products provides a fertile ground for exploring how different sensory inputs can be strategically integrated to enhance consumer engagement and influence purchasing behaviour (Velasco et al., 2021). Moreover, the subjective interpretation of sensory attributes, such as the perceived luxuriousness of a fabric through its hand feel or the perceived warmth through visual cues, plays a critical role in shaping consumer preferences and willingness to pay (Li et al., 2022).

The dependence on sensory stimuli in-store shopping creates unique challenges for online textile retailers. The inability to touch and try on items in digital environments often results in purchase uncertainty, product dissatisfaction, and higher return rates. As a solution, many brands are investing in digital innovations such as augmented reality (AR) fitting rooms, detailed product descriptions, and high-resolution images to partially counterbalance the absence of direct sensory interaction.

Overall, the textile industry illustrates how sensory marketing and the integration of its elements into retail contexts (physical and digital) is not only an enhancement of the consumer experience, but a

fundamental requirement in product evaluation and purchase and, consequently, in influencing consumer behaviour and market performance.

1.3. Influence of Senses in Store

To further understand the wide concept of sensory marketing, it is important to provide a brief but concise review of each of the five primary sensory perceptions. The objective is also to highlight how each of these senses presents opportunities for marketing professionals, especially in retail and brand management, to create exceptional experiences for consumers, stimulating these senses and thereby influencing their decision-making. Pollák et al. (2021, p.22), state that “stimulating the senses can be an effective way to influence customer behavior. However, it is important to understand that how the individual senses work” indicating that the preferences of individuals may be very different if analysed accordingly demographics.

1.3.1. Sight

Considered the most powerful of all senses, Dani & Pabalkar (2013) and Pollák et al. (2021) refer that “as up to 80% of the information is obtained through it” (p.7). Within the topic of marketing, sight is represented as the visual sense. It is the sense most commonly used in advertising, and visual elements such as colours, design and layout are significant when planning the marketing of a product, designing a shop, and strategically positioning products in a retail environment. For Pajonk and Plevová (2015); Pollák et al.,(2021) within this sense it is possible to “define two primary aspects, namely colour and light. Marketers pay increased attention to this aspect in visual marketing.”, they also call our attention to see these aspects as “an effort to arouse the customer’s interest, optimize the conditions of purchase, or achieve compliance between the offer and consumer expectations” (p.7).

As sight is the first impression of a product or service, or even a shop environment, a proper implementation of visual sensory marketing could influence attention and purchasing decisions Pajonk & Plevová (2015) and Pollák et al. (2021) claim that “it should contribute to the creation of a pleasant atmosphere that will have a positive effect on the psyche of customers. Its task is also to draw attention to the goods and thus increase its attractiveness” (p.8).

At points of sale, where most purchasing decisions are made, the possible opportunities for applying and reaching out to the consumer’s sense of sight are almost endless, which is why they are clearly the most frequently used in comparison to the other senses. However, Barclays and Ogden (2015); Rathnayaka (2022), in their study predicted that: attracting consumers through the visual stimulus is complex as it is affected by psychological, sociological and demographic factors. Further, they claimed that it is very important to carefully design each element of the visual cues of a brand in order to create a positive brand image (p.18).

In the case of the big textile retailer Zara, the examples of application in this sense are the use of warm lighting, the placement of the colours, mainly using white and black, and the distribution of the collections throughout the store; all these are factors that engage and influence the consumer (Fondevila-Gascón et al., 2024). As a novelty in a brand new store with advanced technology, the customer will be able to locate the pieces they had saved in the web application in the physical store through a QR and mirrors allow the user trying on the cosmetic products through a filter, without the need to try them on the same skin.

1.3.2. Touch

The sense of touch can be considered the most intimate sense that accompanies people throughout their lives, and since an early age, humans, driven by curiosity, really enjoy touching and feeling. Touch is a sensory experience that can communicate meaning and sense more effectively than any traditional language, which often requires considerable effort to achieve a similar expression.

Research indicates that, in order to feel confident about their purchase, some consumers feel the need to touch and evaluate a product in person or imagine touching it, but people do not touch items randomly; they need to be encouraged to do so. However, this need to touch and feel varies depending on the product, also as the individual, therefore the experience of 'touching' in retail stores is not, for the most part, predefined.

Some seasonal clothing items, such as warm or, conversely, thin garments, often require in-store quality checks through touching and feeling. Hultén et al. (2009) and Pollák et al. (2021) consider that the sense of touch "allows human beings to feel and recognise heat, cold, roughness, smoothness, pain, or many other feelings" (p.14).

Touch plays a crucial role in purchasing decisions, despite being one of the least considered senses due to the challenges of its implementation. When a customer is inspired to make a purchase, touch serves as a connection to motivate action. As tactile perception depends on the forces felt during contact, it can be used to get a potential customer to interact with the object itself or simply to appreciate its final characteristics, which would finally lead to a purchase.

It is widely known that: the aim of the strategy of using touch is primarily to strengthen the identity and image of the brand. This is done through the physical and mental interaction of the brand with the customer. Touching the products makes them easier to remember. This act also raises the expectation that customers will develop a positive relationship with the products (Pollák et al., 2021). "Utilising the sense of touch will encourage the customers to purchase and it will tend to build a strong relationship with the brand by creating trust upon the quality of the product" (Hulten, 2013; Rathnayaka, 2022, p.24).

The entire sensory experience surrounding touch must also include temperature. In a retail environment, this can also influence the length of time customers stay during their visit and,

consequently, their purchasing behaviour. Marketing strategies applied in this regard are aimed at consumer satisfaction through thermal comfort, which consists of the temperature of the surrounding environment.

Some examples in terms of touching, the retailer Zara, chooses to present all the products within the reach of the consumer, either folded and placed in stands or on hangers, which make them easily accessible to touch by the consumer (Fondevila-Gascón et al., 2024). This practice increases consumer satisfaction and influence purchases.

1.3.3. Scent

Despite being considered the first sense to develop, smell is however the least studied. According to Hultén et al. (2009) and Pollák et al. (2021) “smell was considered to be the least researched human sense” (p.2). In terms of marketing, this sense is introduced as aromas or fragrances, which can elicit certain behaviours in consumers, whether it be purchase intent, length of time spent in the shop, or simply leaving memories linked to the brand directly in each consumer.

The message or idea that each brand wants to transmit to consumers through this sense is done subliminally, as these olfactory impressions or scent sensations are barely noticed, but do not go entirely undetected. The sense of smell is considered to be connected to a pleasant sensation, satisfaction and well-being, and is intimately tied to retention and memory. It is known that: the uniqueness of smell in comparison with other senses lies in its direct connection with memory. This physical, as well as nervous proximity of the systems, is the primary reason that we can keep the information gained by the smell in our memory much longer than we can keep in our memory the information we obtain through other sensory sensations (Krishna ;Pollák et al.,2021, p.3).

This sense also presents some challenges in terms of its application process for marketers, as it is also important and necessary to emphasise that what may be satisfactory and positive for one consumer may be exactly the opposite for another. In terms of sensory marketing, it is difficult to know whether the choice for this sense is the right one. This is due not only to the sensation and preference that each consumer feels at the moment in relation to the aroma, but also to the associated memory that each individual has with a certain aroma. Whether a scent evokes positive or negative emotions in a person depends primarily on their individual memories, which are associated with the scent. These memories are based on previous experience, which can make a scent pleasant for one person and not for another (Lindström, 2010; Pollák et al.,2021, p.3).

Regarding practices within the scent sense, all the Zara shops contain the exact same smell. It is perceived as a soft aroma, so as not to distract the consumer, possibly floral although it varies according to the section, since in the kids section it has notes of lemon (Fondevila-Gascón et al., 2024). This personalised ambiance influences the time spent in-store and customer satisfaction.

1.3.4. Sound

Sound is a sense that is deeply connected to emotions and feelings, and every day of one's life, each individual is surrounded by a wealth of information and sound experiences.

For Gobé M. (2001) and Pollák et al. (2021) “sounds activate the emotional part of the brain, which in turn creates feelings and emotions, forming a person's mood. It is a process that takes place subconsciously and continuously 24h a day” (p.6), and according to Hultén et al. (2009) and Pollák et al. (2021) “the sense of hearing is constantly active and cannot be switched off” (p.6).

Within marketing, the sense of sound is presented as audio and it has been used for a relatively long time to influence consumers, either to increase their time spent in store, their decision-making regarding purchasing, or simply to change their perception of the point of sale. According to Siekela (2014) and Pollák et al. (2021) “properly chosen music in the store can lead to a strengthening of the overall atmosphere and also promotes the feeling that the customer belongs to the environment” (p.6), it is also known that: music also affects the perception of the time customers spend in the store. If they like the music playing in the background, they feel like they have spent less time in the store. However, the opposite is also true, and so if the music is unpleasant for customers, they tend to say that they spent more time in the store, even though they were only in the store for a short time (Krishna, 2011; Pollák et al., 2021, p.6).

We cannot address the topic of sound in relation to sensory marketing without also mentioning the importance of choosing the appropriate loudness and how it is distributed throughout the shop, these choices foster consumer loyalty and memories related to each brand and in short it helps to create a strong brand identity. It is also important to choose the volume of the scenery or the distribution and intensity of the music. For example, in fitting rooms, the music should play quieter than in the sales area. While loud music can create a pleasant atmosphere in a store and encourage customers to buy, in fitting rooms such music can be distracting (Siekela, 2014; Pollák et al., 2021, p.7). In addition to creating a sales atmosphere or increasing sales, music is also used as part of the brand identity or audio logo. The use of sound or music tracks as part of the product affects the perception of the brand and also helps to increase its recognizability (Batey, 2016; Pollák et al., 2021, p.7).

As concerning in terms of sound, the playlist of the Zara is the same within all the stores, as it is created by the headquarters of the brand itself (it is not allowed for the staff to change anything in it). The chosen playlists are often between techno-house and deep house, and when in sales season or in times with major flow of consumers, is set at a faster pace and a higher volume (Fondevilla-Gascón et al., 2024). This approach appeal to emotions, influences customer satisfaction and time spent in store.

1.3.5. Taste

Taste is a sense that is considered very personal and widely subjective. Although less relevant in textile retail, taste can complement sensory marketing in specific contexts, such as brand events or premium store launches. “The sense of taste is effective to implement with the contribution of the other sensory brand elements” (Rathnayaka, 2022, p.21).

Dani and Pabalkar (2013) and Pollák et al., (2021) argue that “food and drink tend to be strongly associated with happy or positive memories and that is why the taste aspects of marketing should not be neglected” (p.5). Offering coffee, tea, or small refreshments contributes to an overall pleasant atmosphere and reinforces brand hospitality. For instance, some stores occasionally provides complimentary drinks to create a boutique-like experience and extend dwell time.

The application of this sense in textile is not easy, however the retailer Zara, with its legendary innovation for which it is known, opened a store in Lisbon, and associated itself with a café and patisserie store allowing the Castro Atelier brand to debut a new concept in Portugal: a coffee area inside the shop, named Zara by Castro; where you can taste its cream cakes served on designer crockery alongside with a cappuccino or a matcha latte (Moura, 2024). This will allow to reach to the consumers’ emotions, increase satisfaction and time spent in store.

Table 1. Summary table - Senses

| Sense | Example of Application | Evidence/Author | Expected Effect |
|--------------|---|-------------------------------|---|
| Sight | Placement of the colours, mainly using white and black | Fondevila-Gascón et al., 2024 | Increased customer engagement |
| Touch | All the products are within the reach of the consumer | Fondevila-Gascón et al., 2024 | Increased consumer satisfaction |
| Scent | Soft aroma, possibly floral | Fondevila-Gascón et al., 2024 | Influences time spent in-store |
| Sound | Playlists are often between techno-house and deep house | Fondevila-Gascón et al., 2024 | Appeal to emotions |
| Taste | Zara by Castro, coffee area inside the shop | Moura (2024). | Increase satisfaction and time spent in store |

Source: Author's own elaboration

The summary presented above (Table 1), highlights the main sensory dimensions explored in this research and their relevance to consumer behaviour in the textile sector. The following section details the methodological approach adopted to empirically examine these relationships.

2. Research Methodology

This second chapter aims to align the main purpose and objectives of the research project, as well as the methodological approaches chosen to support it. Hence, it indicates that the methodological hypotheses and the techniques for data collection and analysis were outlined, in addition to the project's general goal and its particular aims.

2.1. Objective of the study and Research Hypotheses

The impulse to face market challenges has always been a reality, but more importantly today, organisations especially feel that they must keep up and even surpass the growth of their competitors. This project is supported by the following initial question: "Which sensory stimuli most effectively impact purchasing decisions in textile retail environments?". This question came around with the desire to cover the main objective of this study, which is to investigate the power of sensory marketing in influencing consumer behaviour within the textile sector, with a specific focus on identifying which sensory stimuli, such as touch, sight, scent and sound, most associates with their purchasing decisions. By understanding these sensory influences, the study aims to provide insights that can help textile retailers enhance consumer engagement, improve customer satisfaction, and develop more effective marketing strategies to stand out in a highly competitive market. Therefore, for study purposes, the following specific objectives were formulated:

- 1) Explore how different stimuli influence consumer decision-making when purchasing textile products;
- 2) Assess the role of multi-sensory marketing strategies in enhancing customer satisfaction and brand loyalty within the textile industry;
- 3) Evaluate the effectiveness of sensory marketing in physical retail settings compared to online platforms for textile products.

To achieve a complete and more effective guide for the research process, several complementary hypotheses were developed to search deeper into the explanation of related factors and those that influence consumers' behaviour, hypotheses that should be tested to respond to the research question as well as the objectives defined:

H₁: There is a positive relation between visual aesthetics in store and willingness to purchase.

H₂: The presence of pleasant ambient scents in textile retail stores is positively related to customer satisfaction and time spent in-store.

H₃: The presence of pleasant ambient sounds in textile retail stores is positively associated to customer satisfaction and time spent in-store.

H₄: Consumers shopping for textile products online are less likely to purchase due to the absence of sensory engagement, particularly the inability to touch the fabric.

H₅: Multi-sensory marketing strategies have a stronger association on consumer purchase intention and brand loyalty compared to single-sensory approaches.

H₆: Visual elements such as lighting and colour schemes in a store significantly relates to consumers' behaviour.

H₇: The effects of music, scent, sight and touch stimuli on textile purchase behaviour differ significantly by gender of consumers.

H₈: Visual aesthetics in-store and willingness to purchase differ by consumers' ages.

Having established the research objectives and hypotheses, the next section presents the methodological approach adopted for their empirical validation, detailing the procedures applied for data collection and analysis.

2.2. Research Methodology

Research methods are the systematic process and theoretical review of research to gain knowledge on a particular subject. It is also, a structured investigation that uses scientific methods to solve problems which requires systematic observation, classification, and interpretation of data. Leavy (2022, p.9) refers to research design as “the process of building a structure, or plan, for your research project,” and points out five major methods of research: “quantitative, qualitative, mixed methods research, arts-based research, and community-based participatory research”.

To carry out the research and gather data that will help in its development, the choice and presentation of the research methodology are two very important issues in the process. Having said this, the approach chosen for this project is the quantitative method, since it is considered appropriate for analysing relationships between variables and identifying measurable patterns, in the case of this research, in consumer behaviour. Quantitative methods enabled the collection of structured data and its subsequent statistical analysis, allowing for objective testing all of the formulated hypothesis.

The authors Dubey & Kothari (2022, p.6) state that “Quantitative research is based on measurement or quantification of the phenomenon under study. That is, it is data based and hence more objective and popular” this type of research involves measuring variables and testing relationships between variables in order to reveal patterns, correlations, or causal relationships.

In methodological terms, in order to be able to answer the starting question through exploratory research, it was conducted survey research through a questionnaire (Appendix 1), designed to collect data on consumers' perceptions and behaviours of sensory marketing stimuli within the textile sector. The questionnaire included both categorical and Likert-scale items. Data collection and statistical analysis were carried out using the Statistical Package for the Social Sciences (SPSS) software. A questionnaire is a powerful research tool consisting of a set of questions designed to collect information from respondents. "Survey research is the most widely used quantitative design in the social sciences" (Leavy, 2022, p.100).

2.3. Description of Data Collection

Each researcher must choose from a variety of approaches to collect the appropriate data for their project, these methods differ considerably in terms of cost, time, and other resources. In this research, primary data was collected via a questionnaire (Appendix 1), but it was also gathered by reading and analysing books and papers.

The survey includes several Likert scales and closed-ended questions with the intention of obtaining both quantitative and qualitative data. The authors Dubey & Kothari (2022) mention that "the question based on interval scale may be based on rating the choices, out of which the most commonly used scale is Likert response scale" (p.112) and closed-ended questions are "deemed appropriate when the respondent has a specific answer to provide" (p.118). The decision to implement several Likert scales (from 1 to 5 points), where (1 = not at all likely/important and 5 = very likely/important), was made as it is suitable for consumer behaviour and perceptions analysis. "To evaluate attitudes and beliefs, various answer measures can be utilised, including Likert scales" (Alordiah & Ossai, 2023, p.605).

The questionnaire was formulated via online by the platform Google Forms, composed by questions formulated in clear and concise language, with the aim of avoiding difficulties to the respondents in understanding and interpreting. The objective of applying the questionnaire is to assess consumers' behaviours to sensory marketing strategies in the textile sector.

The questionnaire (Appendix 1) consisted of a total of 33 questions, divided into six sections. In the first section, sociodemographic data were collected from the study participants (gender, age, and frequency of textile product purchases). The second section surveyed general purchasing behaviour. The third, fourth and fifth sections are linked to respondents' perceptions of the influence of each type of sensory marketing on the purchasing process, both in commercial establishments and online, as well as the preference of the consumer related to each sensory stimuli. Finally, the sixth and last section explores the degree of knowledge of preference by demographics, with a question on how to improve the shopping experience. The variables were operationalised mainly through Likert-scale items (1 = Not at all Likely to 5 = Very Likely), categorical options, and frequency measures.

It is essential, that the respondents focus their impressions of reality around their actual experiences. Initial contacts were approached on the street to random people in the cities of Bragança, during the week, and Chaves on the weekends, between the 1st and 12th of October 2025; they then voluntarily forwarded the link to other textile shoppers, creating a multi-wave snowball. While not random, the network extends well beyond the researcher's personal circle. Street contacts took place on working days (10:00-13:00 and 14:30-19:30) and on the weekends (10:00-18:00) to cover both commuter and leisure shoppers, always in the city centres, on streets near textile stores and on busy streets as well, which were The questionnaire was open to online responses with no interruptions during all the timestamp between the 1st and 12th of October 2025 as well.

2.4. Description of Data Analysis

Regarding the analysis and interpretation of the data collection, it was utilised the software SPSS (Statistical Package for the Social Sciences) to perform statistical tests of the answers collected and to guarantee a good and adequate analysis in line to the defined objectives. The questionnaire was pre-tested with a small sample to ensure clarity and relevance. The internal consistency was assessed using Cronbach's Alpha, with a global value of $\alpha = 0,920$ analysing all Likert scales that correspond to 13 items of the questionnaire indicating very good reliability; per dimension values of $\alpha = 0,788$ analysing 3 items of the questionnaire related to online purchases meaning a reasonable almost good consistency, and $\alpha = 0,902$ analysing 9 items of the questionnaire related to in-store experiences also very good reliability.

For a better analysis and interpretation of results, descriptive statistics were applied throughout all the questions of the survey, with tables that presents frequencies, percentages and means (being this last one applied to all of the like Likert scale questions) to characterise the sample and summarise response distributions. To perform a better illustration of the responses were also utilised pie and bar charts, as well as for a better reading.

To test the hypotheses formulated, that are mentioned in the beginning of the section, and to address the main objective of the research, several statistical analysis models were applied. To perform the inferential analysis, a confidence level of 95% was chosen throughout the study, which, being the most common, would be the most appropriate choice. Several statistical tests, parametric and non-parametric were applied accordingly the distribution of the variables chosen for each hypothesis validation. Either the number of observations is more than 30, or the normality of sample distribution (Shapiro-Wilk test for sample sizes smaller than 30; otherwise, Kolmogorov-Smirnov test), along with performing Levene's test for equality of variances were needed. Normality was verified using the Kolmogorov-Smirnov and Shapiro-Wilk tests. When normality was not confirmed, non-parametric alternatives (Kruskal-Wallis, Mann-Whitney and Spearman) were used. Otherwise, parametric tests such as Pearson correlation and t-tests were applied.

2.5. Population vs. Sample

To facilitate the project using a questionnaire, the target population for this research was defined as all consumers in the textile sector, of all ages above eighteen. The target population included individuals who purchase textile products in retail or online environments, and a minimum of 300 valid responses was considered sufficient to ensure a sufficient sample size to allow meaningful statistical testing of the planned inferential statistical analyses.

The sample size ($n = 303$) was considered sufficient according to commonly accepted rules of thumb and statistical power guidelines. According to RVSPK, Priyanath, and Megama (2020), the minimum recommended sample size in quantitative research should be at least five to ten times the number of observed variables. Given that this study included 33 variables, the required sample size would range between 165 and 330 respondents. Therefore, the final sample of 303 participants satisfies these criteria and ensures adequate statistical power for the planned analyses.

Given the impracticality of creating a random sample representative of the population, the non-probabilistic convenience sampling technique was chosen. This type of technique makes it easy to reach a large number of people.

Snowball sampling was chosen due to its efficiency in reaching diverse consumers who may vary in shopping habits and sensory perceptions. While non-probabilistic, this approach allowed the network of respondents to extend beyond the researcher's immediate contacts, thereby enhancing sample diversity. Also, it was the fastest and most practical way to reach over 300 actual textile shoppers within the timeline. The in-person contact on the street ensured some degree of geographic and age diversity beyond the researcher's own social media network.

The inclusion criteria comprised individuals aged 18 or above who purchase textile products either in-store or online. Participants who did not meet these criteria, as well as industry employees were excluded. Since all questions were mandatory to answer, there were no cases of incomplete questionnaires to discard; for the same reason, there were no missing or invalid data. In order to control in advance and try to prevent the appearance of duplicates, the "Limit to one response" button provided in the Google Forms tool was activated; this way, only one response can be sent per email address.

The choice of Google Forms provided a cost-free, efficient platform with automatic data export (.csv/.xlsx) and built-in duplicate controls. The Likert Scale was applied in the majority due to its common use in research, allowing for the application of parametric statistical tests.

Also, it is important to mention that the non-probability snowball design limits external validity, because the sample was obtained through this approach, the findings cannot be generalised to the entire population of textile consumers. The results reflect the perceptions of the specific group reached through participant networks rather than a fully random sample.

As some of the data were collected through self-administered questionnaires, responses may be influenced by participants' subjective interpretations or social desirability, leading to potential bias in how they reported their perceptions and behaviours. Lastly, the participants assessed sensory marketing elements based on hypothetical scenarios rather than direct exposure in a real retail environment, which may limit the accuracy of their responses compared to actual sensory experiences.

3. Empirical Results Analysis

This study aims to assess how consumers in the textile industry are influenced in their decision-making power, as well as their knowledge and perception of sensory marketing strategies implemented by commercial establishments, and also to understand which sensory factors have the most considerable association on driving purchase intentions and enhancing the overall shopping experience. A quantitative analysis methodology is used on the data obtained from a questionnaire, considering that this technique has traditionally offered excellent results in research related to social sciences, especially in sociodemographic analyses.

3.1. Sample Characterisation/Profile

The table below (Table 2) presents the profile characteristics of the respondents obtained from the questionnaire, almost 61% were female and approximately 39% represent males out of 303 responses, so the sample is moderately female dominated. Most of them were in the age range between 36 and 45 years old, then between 26 and 35, while the other age ranges were quite similar except for the ones with 66 year old or more that only correspond to 3,6% of the respondents, so it is a sample mostly related to middle aged adults, which were the main active consumer for textiles in this research. Most of them shop textile every 3 to 6 months followed by 29% that do it monthly, which indicates a moderate to almost regular purchase frequency. Lastly, it is possible to observe that the majority of respondents tend to shop during all the times of the year presented, being sales/promotions the strongest motivator to do so, followed by the arrival of new collections. The findings suggest a diverse and active group of textile consumers, with behaviour characteristic of seasonal trend and promotional shopping.

Table 2. Characteristics of Sample (n=303)

| | Characteristics | n | % |
|----------------------------|------------------------|----------|----------|
| Respondent's Gender | Female | 184 | 60,7% |
| | Male | 119 | 39,3% |
| Respondent's Age | 18-25 | 52 | 17,2% |
| | 26-35 | 80 | 26,4% |
| | 36-45 | 104 | 34,3% |
| | 46-65 | 56 | 18,5% |
| | 66+ | 11 | 3,6% |

Source: Author's own elaboration obtained from questionnaire

Table 3. Characteristics of Sample (n=303) - continuation

| | Characteristics | n | % |
|--------------------------------------|---|----------|----------|
| Frequency of textile shopping | Weekly | 1 | 0,3% |
| | Monthly | 88 | 29,0% |
| | Every 3-6 months | 182 | 60,1% |
| | Rarely | 32 | 10,6% |
| Time of year most often shop | Arrival of new collections (e.g. Spring, Autumn) | 61 | 20,1% |
| | Sales and promotions (e.g. Black Friday, seasonal sales) | 83 | 27,4% |
| | Change of season (e.g. changing clothes for Winter or Summer) | 54 | 17,8% |
| | Holidays and commemorative dates (e.g. Christmas, New Year's Eve, Easter, Birthday) | 4 | 1,3% |
| | All of the above | 101 | 33,3% |

Source: Author's own elaboration obtained from questionnaire

After outlining the main characteristics of the sample, the following section presents the descriptive analysis, offering a detailed overview of respondents' perceptions regarding sensory marketing in textile retail.

3.2. Descriptive Analysis

Descriptive statistics enables data to be presented in an organised and summarised format, thus obtaining an overall vision of the characteristics of a data set. It is known that descriptive statistics is: a statistical method used to describe various characteristics of data and collect, summarise, present, and describe data so that it can provide helpful information. Data presented in descriptive statistics are usually in the form of data centralisation measures (mean, median, mode), data distribution measures (standard deviation and variance), tables, and graphs (histograms, pies, and bars) (Rahayu et al., 2024, p.571).

Data was analysed using descriptive statistics using means, frequencies and percentages to characterise the sample and summarise response distributions. Reliability tests (Cronbach's alpha) were conducted to assess internal consistency of the sensory perception scales. All the analysis of the graphs and tables presented was conducted taking into account the total number of responses which was to all of the questions (n=303).

Table 4. Cronbach's alpha summary

| Dimension | Items – Questions | Cronbach's α | Consistency |
|-----------------|---|---------------------|----------------------------|
| In-store | Q7; Q8; Q9; Q10; Q12; Q13; Q15; Q16; Q17 | 0,902 | Very Good |
| Online | Q18; Q20; Q22 | 0,788 | Reasonable, almost good |
| Global scale | All Likert scale items (13 items) | 0,920 | Very Good |

Source: Author's own elaboration obtained from SPSS

Above (Table 4), the global Cronbach's Alpha in this case is 0,920, which indicates a high level of internal consistency among the items in the scale. The Cronbach's Alpha by dimension is 0,902 and 0,788 when considering in-store shopping experience and online shopping experience meaning high and moderate reliability respectively. This suggests that the items are reliable.

The figure presented below (Figure 1) shows the distribution of respondents' main shopping channel chosen for purchasing textiles. Physical stores are still what the majority of people chose for their textile purchases, confirming that in-person shopping remains dominant in this sector. Only a really small proportion reported buying only online and using both channels was chosen in moderate numbers, which indicates that consumers still value the tactile and sensory experience associated with physical retail when purchasing textile products.

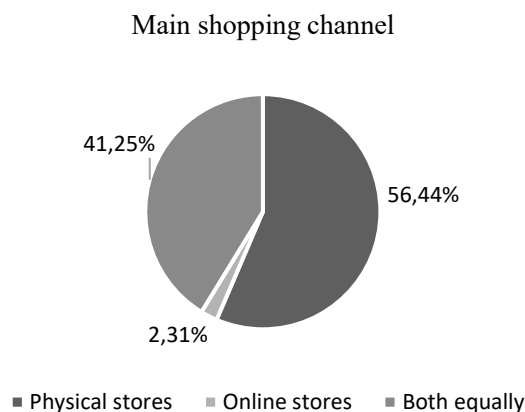


Figure 1. Main shopping channel (n=303)

Source: Author's own elaboration obtained from questionnaire

Table 5, below, presents the frequencies of which factors are most associated with textile purchasing decisions. The vast majority of respondents consider price as the most influential factor, followed by a really high percentage of responses choosing quality. Brand is as well a major factor, alongside with the sensory experience, some respondents emphasized store ambiance and just a few select

the employee empathy. This suggests that while price and product-quality considerations dominate textile purchase decisions, brand and sensory elements are factors still playing a notable secondary role.

Table 5. Frequencies of Factors purchasing (n=303)

| Characteristics | | n | % |
|---|--------------------------|-------------|---------------|
| Main factors for purchasing textiles | Factor_Price | 289 | 95,4% |
| | Factor_Brand | 178 | 58,7% |
| | Factor_Quality | 268 | 88,4% |
| | Factor_StoreAmbiance | 72 | 23,8% |
| | Factor_SensoryExperience | 147 | 48,5% |
| | Factor_EmployeeEmpathy | 47 | 15,5% |
| Total | | 1001 | 330,4% |

Source: Author's own elaboration obtained from questionnaire

Table 6, below, provides an overview of sensory stimuli and their relation on consumer behaviour in-store. Importance of touching fabrics being the response with highest mean score suggests that the ability to touch and feel fabrics is crucial for consumers, followed by the importance of visuals in store and the overall in-store experience. All of the other statements analysed show also a notable association on the behaviour of shopping experience.

Table 6. Overview sensory stimuli and behaviour in store

| Statement | Mean | Std. Deviation |
|---|-------------|-----------------------|
| Importance of in-store experience | 4,07 | 0,696 |
| Influence of in-store visual aesthetics | 3,72 | 0,779 |
| Likelihood to explore/spend more time due to visuals | 4,14 | 0,713 |
| Importance of touching fabrics | 4,56 | 0,668 |
| Extent scent effects shopping experience | 3,68 | 0,662 |
| Impact of background music | 3,85 | 0,844 |
| Overall influence of sensory elements | 3,94 | 0,809 |
| Likelihood to stay longer due to scent | 3,86 | 0,710 |
| Likelihood to stay longer due to music | 3,72 | 0,821 |

Source: Author's own elaboration obtained from questionnaire

The next figure (Figure 2) indicates if the respondents ever been influenced by a store scent. The majority of respondents indicated that they have been influenced by a store's scent when purchasing textile products, while a few are not sure if they noticed or have been influenced by scent and a minor number admitted that they have never been influenced by the scent of a store. This supports the relevance of scent as part of sensory marketing in the textile retail context.

Ever been influenced by store scent

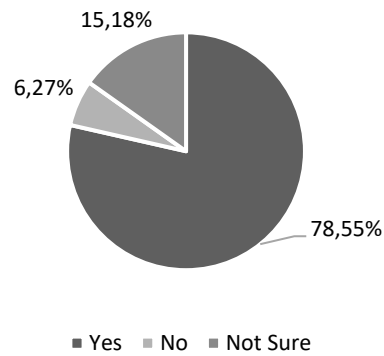


Figure 2. Ever been influenced by store scent (n=303)

Source: Author's own elaboration obtained from questionnaire

Figure 3 below, shows in percentage, if respondents tend to spend more time in-store with a pleasant ambiance. A significant majority answered yes, indicating that a pleasant store ambiance encourages longer stays. A smaller group indicates that other factors are related to the decision to spend more time in-store while a very small percentage states that they don't spend more time if the store has a pleasant ambiance. This reinforces the idea that atmospheric and sensory elements (lighting, scent, music) play an important role in prolonging consumer engagement within textile retail environments.

Spend more time in-store with pleasant ambiance

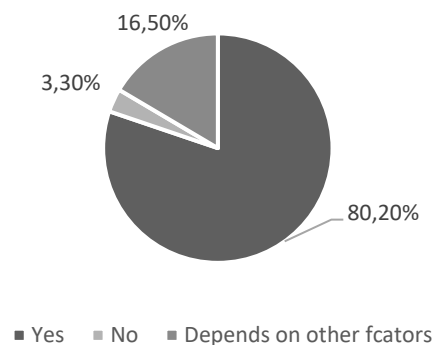


Figure 3. Spend more time in-store with pleasant ambiance (n=303)

Source: Author's own elaboration obtained from questionnaire

The table below (Table 7) introduces the analysis of online shopping, presenting the frequency, its main challenges and factors most affecting decisions when shopping for textile products. The majority of respondents shop for textiles online occasionally, indicating that while online shopping is common, it is not the primary shopping channel for most consumers in this sector. A significant portion shop rarely, and a smaller group never shops online for textiles. A substantial number of respondents cited all the listed challenges, indicating that online shopping for textiles presents

multiple hurdles that affect the overall shopping experience, being quality uncertainty the most significant one followed by the lack of a sensory experience. The inability to touch the fabric is the most significant factor affecting online purchase decisions, followed by the inability to see what products really look like. A notable number of respondents also cited not being able to try on products as a major factor influencing their online shopping decisions.

Table 7. Frequency of online shopping, main challenges and factor most affecting decisions (n=303)

| Statement | n | % |
|---|--|------------|
| Frequency of online textile shopping | Always | 1 0,33% |
| | Frequently | 49 16,17% |
| | Occasionally | 166 54,79% |
| | Rarely | 61 20,13% |
| | Never | 26 8,58% |
| Main challenges of buying textile online | Lack of sensory experience | 42 13,86% |
| | Quality uncertainty | 88 29,04% |
| | Returns/refunds | 34 11,22% |
| | Delivery time | 2 0,66% |
| | All of the above | 137 45,21% |
| Factor most affecting online purchase decision | Inability to touch the fabric | 117 38,61% |
| | Store ambiance | 25 8,25% |
| | Not being able to try on the products | 64 21,12% |
| | Being unable to see what the products really look like | 85 28,05% |
| | Lack of the multisensory experience | 12 3,96% |

Source: Author's own elaboration obtained from questionnaire

Below, table 8 shows an overview on the extent to which the sensory absence discourages respondents from online purchases of textile products. The mean score of 3,96 on a Likert scale of 1 to 5 (where 1 = "Not at all Likely" and 5 = "Very Likely") indicates that respondents generally feel that the lack of sensory stimuli is a significant restraint to making online purchases of textiles.

Table 8. Overview of online lack of sensory stimuli (n=303)

| Statement | Mean | Std. Deviation |
|--|-------------|-----------------------|
| Extent sensory absence discourages online purchases | 3,96 | 0,758 |

Source: Author's own elaboration obtained from questionnaire

Figure 4, below, illustrates the likelihood of respondents making a purchase due to enhanced sensory information available online. A vast majority of respondents, believe that enhanced sensory information would increase their online purchases, in contrast to the answers "No" and "Maybe".

Would enhanced sensory information increase purchases online

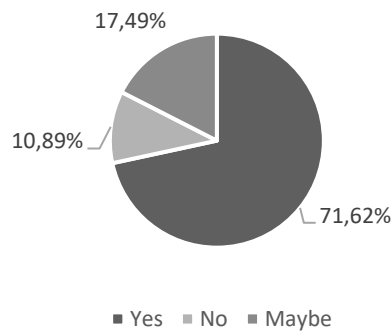


Figure 4. Probability to buy due to enhanced sensory information online (n=303)

Source: Author's own elaboration obtained from questionnaire

Below, figure 5 shows the percentage of respondents who have been influenced to revisit a store due to its sensory elements. A substantial majority of respondents indicated that they have revisited a store because of a sensory experience. While a portion of the respondents are not sure of this behaviour, a low percentage of people claimed that they do not have been influenced by a store sensory experience as a reason to revisit.

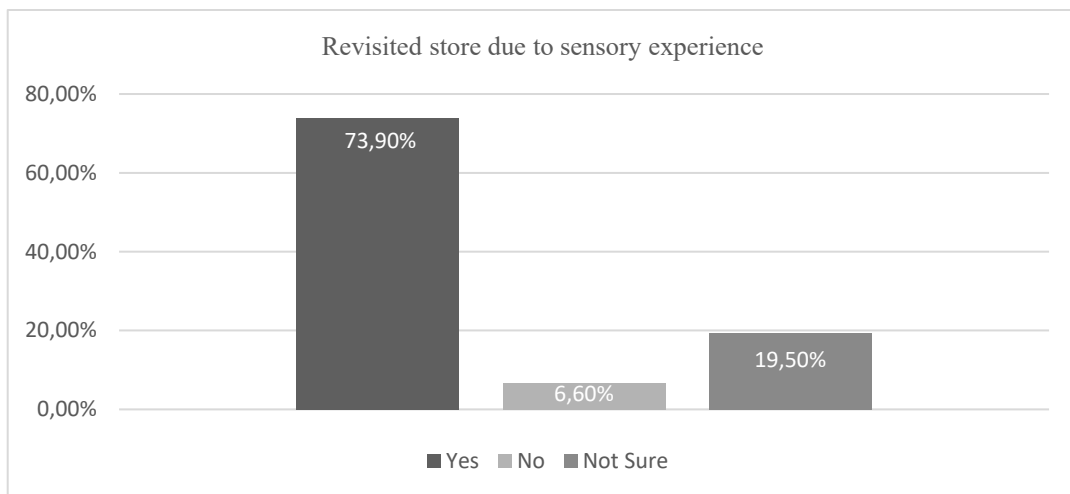


Figure 5. Influence on revisit shop due to sensory stimuli (n=303)

Source: Author's own elaboration obtained from questionnaire

Table 9, below, presents a single statement regarding the association of sensory experiences on brand loyalty. The mean score of 3.93 suggests that respondents generally perceive sensory experiences to have a moderate to somewhat strong relation on their brand loyalty. This score indicates that while sensory experiences are recognized as influential, they might not be the sole or most dominant factor influencing brand loyalty.

Table 9. Sensory experiences contribution to brand loyalty

| Statement | Mean | Std. Deviation |
|---------------------------------|------|----------------|
| Sensory impact on brand loyalty | 3,93 | 0,701 |

Source: Author's own elaboration obtained from questionnaire

Below, table 10 provides a breakdown of which sensory elements respondents feel have the most significant association on their decision to return to a textile store. While certain sensory elements like visuals and fabric texture are more commonly recognised by consumers as influencing their store revisits, a combined sensory experience is perceived as being the most effective.

Table 10. Overview of sense that most affect return to textile store (n=303)

| Characteristics | n | % | |
|---------------------------------------|----------------|-----|--------|
| Sensory element most affecting return | Visuals | 85 | 28,05% |
| | Scent | 1 | 0,33% |
| | Music | 0 | 0,00% |
| | Fabric texture | 56 | 18,48% |
| | All of them | 159 | 52,48% |
| | None | 2 | 0,66% |

Source: Author's own elaboration obtained from questionnaire

The figure presented below (Figure 6) illustrates the preference of respondents for multisensory experience in stores. The results highlight an overwhelming majority of respondents, who expressed a preference for multisensory shopping experience in stores. A small portion of respondents reported no preference while only one of the respondents indicated a preference against multisensory stores.

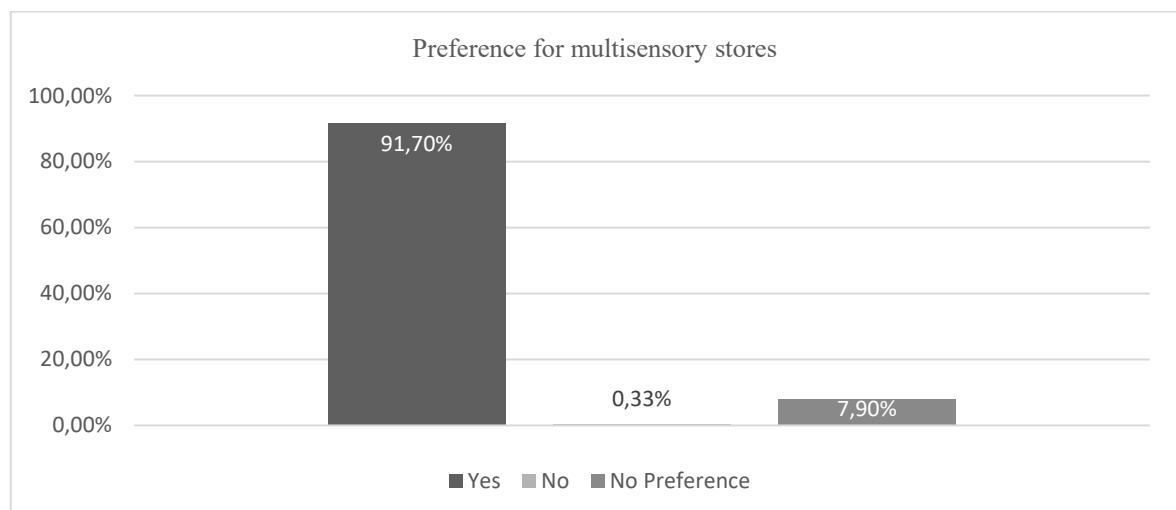


Figure 6. Preference for multisensory stores (n=303)

Source: Author's own elaboration obtained from questionnaire

Figure 7, presented below, displays the percentage of respondents that already have recommended a store to others based on the sensory experience provided. Again, a significant majority of respondents indicated that they have recommended a store due to its sensory experience. While only some of respondents are uncertain whether they have recommended a store or not, just a few admitted that they do not recommended a store based on sensory experience.

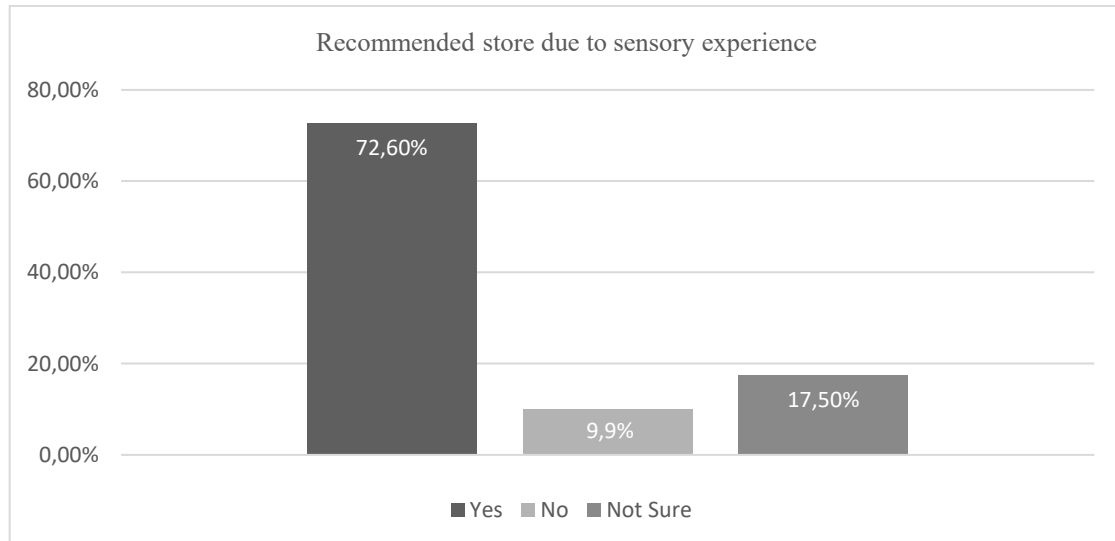


Figure 7. Recommended textile store due to sensory experience (n=303)

Source: Author's own elaboration obtained from questionnaire

Table 11, below, presents the extent to which respondents believe that multisensory stores are superior to those offering a single sensory experience. The results show a strong agreement among consumers that multisensory experiences enhance their shopping experience compared to uni-sensory ones.

Table 11. Extent of agreement that stores with multisensory > uni-sensory (n=303)

| Statement | Mean | Std. Deviation |
|---|------|----------------|
| Agreement that multisensory > uni-sensory | 4,09 | 0,650 |

Source: Author's own elaboration obtained from questionnaire

The figure presented below (Figure 8), indicates the percentage of respondents who feel more encouraged to purchase when multiple senses are engaged during the shopping experience. The results show that engaging multiple senses during the shopping experience is generally viewed as a positive association on purchase behavior by the majority of consumers, since the large majority of them responded “Yes” in contrast to the percentage of respondents choosing the answers “No” and “Not Sure”, while in this last option a few of them are uncertain about the effect of multisensory engagement on their purchasing behavior.

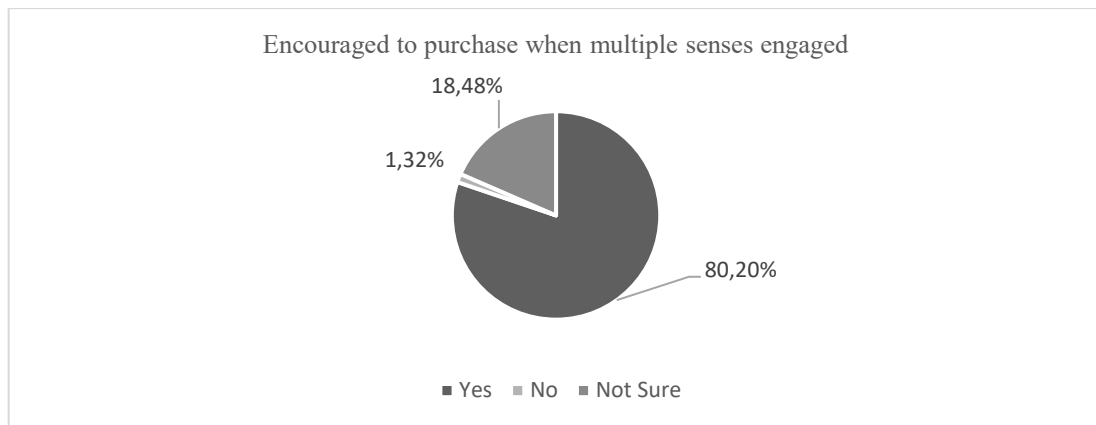


Figure 8. More encouraged to purchase when multiple-sensory experience applied (n=303)

Source: Author's own elaboration obtained from questionnaire

In table 12, below, it is possible to observe an overview of the perceptions of the respondents regarding sensory marketing when questioned if its perception differs or not by age and by gender. A substantial majority of respondents believe that sensory marketing appeals differently to different age groups and its perception differs by gender as well. While a moderate number of respondents are uncertain on whether sensory marketing perception differs by gender, only a few are uncertain that sensory marketing appeals differently by age. A negligible percentage of respondents believe that sensory marketing does not appeal differently by age nor perception differ by gender.

Table 12. Overview sensory marketing perceptions (n=303)

| Statement | | n | % |
|---|-------|-----|--------|
| Sensory marketing appeals differently by age | Yes | 283 | 93,4% |
| | No | 2 | 0,66% |
| | Maybe | 18 | 5,94% |
| Sensory marketing perception differs by gender | Yes | 262 | 86,47% |
| | No | 2 | 0,66% |
| | Maybe | 39 | 12,87% |

Source: Author's own elaboration obtained from questionnaire

Table 13, below, presents a single statement regarding the perception of sensory awareness in retail, specifically focusing on the female gender. The mean score suggests that there is a moderate to strong agreement among respondents that females have greater sensory awareness in retail settings.

Table 13. Consideration- female gender has greater sensory awareness in retail (n=303)

| Statement | Mean | Std. Deviation |
|--|------|----------------|
| Female gender has greater sensory awareness | 4,03 | 0,622 |

Source: Author's own elaboration obtained from questionnaire

The table presented below (table 14) provides a summary of the various factors that respondents believe would improve their in-store shopping experience the most. While visual aesthetics like neutral colour and lighting schemes are prioritized by the majority, as over half of them pointed out this option, there is also a significant interest in interactive displays and a stronger brand identity.

Table 14. Overview improvement of in-store experience (n=303)

| Characteristics | | n | % |
|---|---|-----|--------|
| What would improve in-store shopping experience the most | A more neutral colour and lighting scheme for the aesthetic | 164 | 54,13% |
| | Interactive displays | 51 | 16,83% |
| | Stronger brand identity | 47 | 15,51% |
| | Relaxed ambience with soft music and scent | 28 | 9,24% |
| | Other | 13 | 4,29% |

Source: Author's own elaboration obtained from questionnaire

The descriptive results provided an overview of respondents' perceptions and behavioural tendencies, offering initial insights into patterns related to sensory marketing. The next section presents the inferential analysis, aiming to verify the proposed hypotheses and explore the relationships between the study variables.

3.3. Inferential Analysis

To reach conclusions about the association or difference between two or more variables, it is applied the inferential statistics through significance tests, parametric tests were applied when appropriate and non-parametric tests when the conditions for the mentioned first were not met. It provides an understanding of how the sample analysed from a dataset supports the pre-established hypothesis. Rahayu et al. (2024), refer to inferential statistics as "a method related to data analysis on samples, and the results are used to generalise the population. Inferential statistics is based on probability, and the samples analysed are selected randomly" (p.571).

Inferential analyses (e.g., both Pearson and Spearman correlation, two-independent samples t-test, Mann-Whitney, and Kruskal-Wallis) were planned to examine differences and associations between sensory marketing dimensions and consumer behaviour variables. These tests were conducted to confirm the validity of the hypothesis presented in chapter 2 of this research. But not without first, assuming normal distribution ($N > 30$), or either way the normality of sample distribution would be needed to test through (Shapiro-Wilk test for sample sizes smaller than 30; otherwise, Kolmogorov-Smirnov test), along with performing Levene's test for equality of variances. When normality was not confirmed, non-parametric alternatives (Spearman correlation, Mann-Whitney, and Kruskal-Wallis) were applied. Otherwise, parametric tests such as Pearson correlations and t-tests were used.

H1 – To perform tests for this hypothesis, ‘Influence of in-store visual aesthetics’ and ‘Overall influence of sensory elements’ corresponding to items Q8 and Q15, respectively, of the questionnaire were analysed. Assuming a normal distribution, as the sample is more than 30 (sample size of 303 respondents), the statistical test employed for this investigation was a parametric test, a Pearson correlation, which is appropriate for measuring the linear relationship between two continuous variables and normally distributed.

H₀: There is no relation between visual aesthetics in store and willingness to purchase.

H_a: There is a positive relation between visual aesthetics in store and willingness to purchase.

Table 15. Pearson Correlation - H1

| Correlations | | Influence of in-store visual aesthetics | Overall influence of sensory elements |
|--|---------------------|--|--|
| Influence of in-store visual aesthetics | Pearson Correlation | 1 | ,461** |
| | Sig. (2-tailed) | | <,001 |
| | n | 303 | 303 |
| Overall influence of sensory elements on purchase | Pearson Correlation | ,461** | 1 |
| | Sig. (2-tailed) | <,001 | |
| | n | 303 | 303 |

**Correlation is significant at the level 0,01 (2-tailed)

Source: Author's own elaboration obtained from SPSS

Table 15 above, shows that the Pearson correlation value is (r) is 0,461 indicating a moderate positive correlation between the two variables, the observations number is n=303, and the associated p-value is less than 0,001, which is much lower than the conventional significance level of 0,05. This means that the observed correlation is statistically significant, and it is unlikely to have occurred by chance. Given the significant p-value and the positive correlation coefficient, reject the null hypothesis (H₀) and accept the alternative hypothesis (H_a). This supports the conclusion that there is a positive relationship between visual aesthetics in store and the willingness to purchase.

H2 - Two tests with 3 different variables to relate were chosen, so it was needed to break out H2 within (A and B). For H2A descriptive statistics were applied for the likelihood to stay longer due to scent corresponding to item Q16 of the questionnaire, broken down by whether respondents were influenced by store scent or not corresponding to the item Q11 of the questionnaire. The levels of one of the variables ‘Yes’, ‘No’ and ‘Not Sure’ correspond to the item Q11 of the questionnaire. The median and mode values suggested a central tendency towards a higher likelihood of staying longer when influenced by scent. Shapiro-Wilk tests were needed to assess the normality of the data. The results indicate that the data does not follow a normal distribution, as the p-values are less than 0,05 for most groups.

Table 16. Normality tests - H2A

| | Ever influenced by store scent | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
|---|--------------------------------|---------------------------------|-----|-------|--------------|-----|-------|
| | | Statistic | df | Sig. | Statistic | df | Sig. |
| Likelihood to stay longer due to scent | Yes | ,419 | 238 | <,001 | ,626 | 238 | <,001 |
| | No | ,188 | 19 | ,076 | ,923 | 19 | ,126 |
| | Not Sure | ,364 | 46 | <,001 | ,782 | 46 | <,001 |

^a. Lilliefors Significance Correction

Source: Author's own elaboration obtained from SPSS

Since normality is not assumed and p-value is $p < 0,05$ above (Table 16), it was chosen to proceed with the Kruskal-Wallis test, a non-parametric test, to compare the groups. The Kruskal-Wallis test seen below (Table 17) is suitable for comparing more than two independent groups (ordinal/non-normal data) when the data is not normally distributed.

Table 17. Non-Parametric test - Kruskal-Wallis - H2A

| | Ever influenced by store scent | n | Mean Rank |
|---|--------------------------------|-----|-----------|
| Likelihood to stay longer due to scent | Yes | 238 | 173,04 |
| | No | 19 | 56,47 |
| | Not Sure | 46 | 82,62 |
| | Total | 303 | |

Source: Author's own elaboration obtained from SPSS

Table 18. Kruskal-Wallis - H2A

| Test Statistics ^{a,b} | |
|---|--|
| | Likelihood to stay longer due to scent |
| Kruskal-Wallis H | 91,832 |
| df | 2 |
| Asymp. Sig. | <,001 |
| ^a Kruskal Wallis Test | |
| ^b Grouping Variable:Ever influenced by store scent | |

Source: Author's own elaboration obtained from SPSS

H₀: Pleasant ambient scents have no significant effect on satisfaction and time in-store.

H_a: Pleasant ambient scents are positively related to satisfaction and time in-store.

Table 18, above, shows that the test statistic (H) is 91,832 with 2 degrees of freedom, and the significance level is less than 0.001, indicating a statistically significant difference between the groups. Based on the Kruskal-Wallis test, we found a statistically significant difference in the likelihood to stay longer due to scent across the groups ($p < 0.001$) which is much lower than the

conventional significance level of 0,05. Therefore, we reject the null hypothesis (H0) and accept the alternative hypothesis (Ha) and conclude that pleasant ambient scents do have a positive relation on satisfaction and time in-store.

Regarding H2B descriptive analysis were conducted and the data indicates a strong positive correlation between the extent to which scent affects shopping experience corresponding to item Q12 of the questionnaire, and the likelihood to stay longer due to scent corresponding to item Q16 of the questionnaire, with most respondents indicating that pleasant ambient scents are positively related to satisfaction and time in-store. Both variables do not normally distributed, so normality tests are not applicable. Therefore, the statistical test applied was a non-parametric test, the Spearman correlation. Spearman correlation is appropriate for measuring the strength and direction of the monotonic relationship between two variables; relationship between scent intensity (ordinal) and time-spent (ordinal) when the data is not normally distributed.

Table 19. Spearman Correlation - H2B

| Correlations | | | | |
|--|---|-------------------------|---|---|
| | | | Extent scent effects shopping experience | Likelihood to stay longer due to scent |
| Spearman's rho | Extent scent effects shopping experience | Correlation Coefficient | 1,000 | ,630** |
| | | Sig. (2-tailed) | | <,001 |
| | | n | 303 | 303 |
| | Likelihood to stay longer due to scent | Correlation Coefficient | ,630** | 1,000 |
| | | Sig. (2-tailed) | <,001 | |
| | | n | 303 | 303 |
| **Correlation is significant at the level 0,01 (2-tailed) | | | | |

Source: Author's own elaboration obtained from SPSS

H0: Pleasant ambient scents have no significant effect on satisfaction and time in-store.

Ha: Pleasant ambient scents positively relate to satisfaction and time in-store.

Above on (Table 19), the Spearman's rank correlation coefficient (rho) is 0,630, suggesting a strong positive correlation between the extent to which scent affects shopping experience and the likelihood to stay longer due to scent. The observations number is n = 303, with groups who have not normal distribution. The p-value associated is less than 0,001, which is much lower than the conventional significance level of 0,05 indicating the correlation is statistically significant at the 0,01 level. So, we reject the null hypothesis (H0) and accept the alternative hypothesis (Ha) that pleasant ambient scents have a positive relation on customer behavior in terms of satisfaction and time spent in-store.

H3 - To perform tests for this hypothesis, 'Impact of background music' and 'Likelihood to spend more time due to music' corresponding to items Q13 and Q17, respectively, of the questionnaire will be analysed. Descriptive analysis was conducted and the data shows a range of responses to the effect of background music, with most respondents indicating a moderate to high likelihood of staying

longer due to music. The data indicates a positive correlation between the effect of background music and the likelihood to stay longer in the store, with higher scores on the Likert scale suggesting a greater association. Normality tests, below (Table 20), Shapiro-Wilk indicate that the data does not follow a normal distribution across all groups, as the p-values are less than 0,05 for majority of groups, so non-parametrical tests, Spearman correlation, was applied to verify the validity of the hypothesis. Spearman correlation is appropriate for measuring the strength and direction of the monotonic relationship between two variables (Music/sound and satisfaction/time variables are ordinal and non-normal) when the data is not normally distributed.

Table 20. Normality tests - H3

| | Impact of background music | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
|---|----------------------------|---------------------------------|-----|-------|--------------|-----|-------|
| | | Statistic | df | Sig. | Statistic | df | Sig. |
| Likelihood to stay longer due to music | 1 | ,253 | 3 | . | ,964 | 3 | ,637 |
| | 2 | ,354 | 17 | <,001 | ,799 | 17 | ,002 |
| | 3 | ,410 | 65 | <,001 | ,679 | 65 | <,001 |
| | 4 | ,434 | 156 | <,001 | ,644 | 156 | <,001 |
| | 5 | ,389 | 62 | <,001 | ,623 | 62 | <,001 |

^a. Lilliefors Significance Correction

Source: Author's own elaboration obtained from SPSS

Table 21. Spearman Correlation - H3

| Correlations | | | Impact of background music | Likelihood to stay longer due to music |
|-----------------------|---|-------------------------|----------------------------|--|
| Spearman's rho | Impact of background music | Correlation Coefficient | 1,000 | ,730** |
| | | Sig. (2-tailed) | | <,001 |
| | | n | 303 | 303 |
| | Likelihood to stay longer due to music | Correlation Coefficient | ,730** | 1,000 |
| | | Sig. (2-tailed) | <,001 | |
| | | n | 303 | 303 |

****.**Correlation is significant at the level 0,01 (2-tailed)

Source: Author's own elaboration obtained from SPSS

H₀: Pleasant ambient sound has no significant effect in satisfaction and time in-store.

H_a: Pleasant ambient sound is positively associated to satisfaction and time in-store.

Table 21, above shows the Spearman's rank correlation coefficient (rho) is 0,730, indicating a strong positive correlation between the effect of background music and the likelihood to stay longer due to music. The observations number is n = 303. The associated p-value is less than 0,001, which is much lower than the conventional significance level of 0,05 and which is statistically significant at the 0,01 level and we can reject the null hypothesis (H₀) and accept the alternative hypothesis (H_a) and

conclude that pleasant ambient sounds do indeed have a positive association on customer behavior in terms of satisfaction and time spent in-store.

H4 - Descriptive analysis was conducted and the data shows a range of responses to the extent of how much sensory absence discourages online purchases corresponding to item Q20 of the questionnaire and also to the factors that most affects purchasing decisions corresponding to item Q21. The levels of one of the variables 'Inability to touch the fabric', 'Store ambiance', 'Not being able to try on the products', 'Being unable to see what the products really look like' and 'Lack of the multi-sensory experience', all correspond to item Q21 of the questionnaire. With most respondents indicating that the lack of sensory stimuli discourages them strongly to make online purchases, with the major number of respondents choosing as the factor most discouraging being the inability to touch the fabrics, followed by not being able to see the real aspect of the products. Shapiro-Wilk tests were needed to assess the normality of the data. The results observed below (Table 22), indicate that the data does not follow a normal distribution, as the p-values are less than 0,05 for most groups.

Table 22. Normality tests - H4

| | Factor most affecting online purchase decision | Kolmogorov- Smirnov ^a | | | Shapiro- Wilk | | |
|--|--|-------------------------------------|-----|-------|------------------|-----|-------|
| | | Statistic | df | Sig. | Statistic | df | Sig. |
| Extent sensory absence discourages online purchases | Inability to touch the fabric | ,428 | 117 | <,001 | ,559 | 117 | <,001 |
| | Store ambiance | . | 25 | . | . | 25 | ,126 |
| | Not being able to try on the products | ,349 | 64 | <,001 | ,794 | 64 | <,001 |
| | Being unable to see what the products really look like | ,302 | 85 | <,001 | ,758 | 85 | <,001 |
| | Lack of the multi-sensory experience | ,308 | 12 | ,003 | ,725 | 12 | <,001 |

^a. Lilliefors Significance Correction

Source: Author's own elaboration obtained from SPSS

Since normality is not assumed and p-value <0,05 as observed on the results above (Table 22), it was chosen to continue with the use of the Kruskal-Wallis test, a non-parametric test, to compare the groups. The Kruskal-Wallis test observed below (Table 23), is suitable for comparing more than two independent groups when the data is not normally distributed.

Table 23. Non-Parametric test – Kruskal-Wallis - H4

| | Factor most affecting online purchase decision | n | Mean Rank |
|--|--|----------|------------------|
| Extent sensory absence discourages online purchases | Inability to touch the fabric | 117 | 152,44 |
| | Store ambiance | 25 | 151,50 |
| | Not being able to try on the products | 64 | 86,53 |
| | Being unable to see what the products really look like | 85 | 195,96 |
| | Lack of the multi-sensory experience | 12 | 186,46 |
| | Total | 303 | |

Source: Author's own elaboration obtained from SPSS

Table 24. Kruskal-Wallis - H4

| Test Statistics^{a,b} | Extent sensory absence discourages online purchases |
|--------------------------------------|--|
| Kruskal-Wallis H | 73,652 |
| df | 4 |
| Asymp. Sig. | <,001 |

^{a.} Kruskal Wallis Test
^{b.} Grouping Variable:Factor most affecting online purchase decision

Source: Author's own elaboration obtained from SPSS

H₀: The absence of sensory engagement, particularly the inability to touch the fabric do not have a significance association on consumers purchase shopping for textile products online.

H_a: Consumers shopping for textile products online are less likely to make a purchase due to the absence of sensory engagement, particularly the inability to touch the fabric.

Table 24 above, show that the test statistic (H) is 73,652 with 4 degrees of freedom, and the significance level is less than 0,001. Based on the Kruskal-Wallis test, we found a statistically significant difference in absence of sensory engagement in purchasing online as the assigned p-value is less than 0,001, which is much lower than the conventional significance level of 0,05. Therefore, we reject the null hypothesis (H₀) and confirm that sensory absence strongly affects online purchasing discouragement, accepting the alternative hypothesis (H_a) in general.

This suggests that the absence of sensory engagement does have a significant association on the likelihood of making an online purchase, however there are significant differences in discouragement levels depending on which sensory factor respondents find most limiting when shopping online. Although the largest number of participants (N = 117) selected “inability to touch the fabric” as the main limitation, the mean ranks indicate that the strongest discouragement was reported for “unable to see what the product really look like” and “lack of multi-sensory experience”. This suggests that while tactile absence is the most frequently cited factor, visual and multi-sensory limitations generate higher levels of discouragement. Mean ranks show that visual and multi-sensory factors discourage

online purchases the most, while the “inability to touch the fabric” is also a key barrier, but to a lesser extent. The Kruskal–Wallis test confirmed significant overall differences ($p < 0,001$), so pairwise Mann–Whitney tests are needed to identify exactly which factors differ, analysing the comparison between groups, including all of the factors that most affects online purchase decision corresponding to the item Q21 of the questionnaire with the extent to which discourages online purchases the most corresponding to the item Q20 of the questionnaire. There is also the need to adjust the p-value from 0,05 to 0,0125 (Bonferroni correction) to control type I errors.

Table 25. Non-Parametric test - Mann-Whitney - H4

| Ranks | | Recode Factor most affecting online purchase decision | n | Mean Rank | Sum of Ranks |
|-------------------------|--------------------|--|----------|------------------|---------------------|
| Extent | sensory | Inability to touch the fabric | 117 | 71,61 | 8378,00 |
| absence | discourages | Store Ambiance | 25 | 71,00 | 1775,00 |
| online purchases | | Total | 142 | | |

Source: Author's own elaboration obtained from SPSS

Table 26. Post-hoc Mann-Whitney - H4

| Test Statistics^a | |
|------------------------------------|--|
| | Extent sensory absence discourages online purchases |
| Mann-Whitney U | 1450,000 |
| Wilcoxon W | 1775,000 |
| Z | -,109 |
| Asymp. Sig. (2 tailed) | ,914 |

^a. Grouping variable: Factor most affecting online purchase decision

Source: Author's own elaboration obtained from SPSS

In table 25, the Mann-Whitney U test results indicate that there is no significant difference between the two groups, 'Inability to touch the fabric' and 'Store Ambiance' as levels of the variable of the item Q21 of the questionnaire, when considering the extent to which sensory absence discourages online purchases corresponding to item Q20. Table 26 above shows that the assigned p-value is more than 0,0125, this suggests that the inability to touch and the store environment do not significantly differ in their association on discouraging online purchases. This is also supported by the mean rank.

Table 27. Non-Parametric test - Mann-Whitney - H4

| Ranks | | Recode Factor most affecting online purchase decision | n | Mean Rank | Sum of Ranks |
|-------------------------|--------------------|--|----------|------------------|---------------------|
| Extent | sensory | Inability to touch the fabric | 117 | 107,35 | 12560,00 |
| absence | discourages | Not being able to try on the products | 64 | 61,11 | 3911,00 |
| online purchases | | Total | 181 | | |

Source: Author's own elaboration obtained from SPSS

Table 28. Post-hoc Mann-Whitney - H4

| Test Statistics^a | |
|------------------------------------|--|
| | Extent sensory absence discourages online purchases |
| Mann-Whitney U | 1831,000 |
| Wilcoxon W | 3911,000 |
| Z | -6,573 |
| Asymp. Sig. (2 tailed) | <,001 |

^a. Grouping variable: Factor most affecting online purchase decision

Source: Author's own elaboration obtained from SPSS

The Mann-Whitney U test results observed above (Table 27), indicate a significant difference between the two groups, 'Inability to touch the fabric' and 'Not being able to try on the products' as levels of the variable of the item Q21 of the questionnaire, when considering the extent to which sensory absence discourages online purchases corresponding to item Q20. Table 28, above shows that the assigned p-value is less than 0,001, this suggests that the inability to touch the fabrics and not being able to try on the products affect the decision to purchase online, being the first one significantly more discouraging. This is also supported by the mean rank.

Table 29. Non-Parametric test - Mann-Whitney - H4

| Ranks | | | | | | |
|--|--|---------------|-----------------|----------|------------------|---------------------|
| | Recode | Factor | most | n | Mean Rank | Sum of Ranks |
| | extending | online | purchase | | | |
| | decision | | | | | |
| Extent sensory absence discourages online purchases | Inability to touch the fabric | | | 117 | 87,21 | 10203,00 |
| | Being unable to see what the products really look like | | | 85 | 121,18 | 10300,00 |
| | Total | | | 202 | | |

Source: Author's own elaboration obtained from SPSS

Table 30. Post-hoc Mann-Whitney - H4

| Test Statistics^a | |
|------------------------------------|--|
| | Extent sensory absence discourages online purchases |
| Mann-Whitney U | 3300,000 |
| Wilcoxon W | 10203,000 |
| Z | -4,766 |
| Asymp. Sig. (2 tailed) | <,001 |

^a. Grouping variable: Factor most affecting online purchase decision

Source: Author's own elaboration obtained from SPSS

It is possible to observe above (Table 29), that Mann-Whitney U test results indicate a significant difference between the two groups, 'Inability to touch the fabric' and 'Being unable to see what the products really look like' as levels of the variable of item Q21 of the questionnaire, when considering the extent to which sensory absence discourages online purchases corresponding to item Q20. Since

the assigned p-value is less than 0,001 as also seen above (Table 30), this suggests that the inability to touch and decide and not being able to see the real aspect of the products affect the decision to purchase online, being this second one significantly more discouraging. This is also supported by the mean rank.

Table 31. Non-Parametric test - Mann-Whitney - H4

| Ranks | | Recode Factor most affecting online purchase decision | n | Mean Rank | Sum of Ranks |
|--|--|--|----------|------------------|---------------------|
| Extent sensory absence discourages online purchases | | Inability to touch the fabric | 117 | 63,28 | 7404,00 |
| | | Lack of the multi-sensory experience | 12 | 81,75 | 981,00 |
| | | Total | 129 | | |

Source: Author's own elaboration obtained from SPSS

Table 32. Post-hoc Mann-Whitney - H4

| Test Statistics^a | |
|------------------------------------|--|
| | Extent sensory absence discourages online purchases |
| Mann-Whitney U | 501,000 |
| Wilcoxon W | 7404,000 |
| Z | -2,235 |
| Asymp. Sig. (2 tailed) | ,025 |

^a. Grouping variable: Factor most affecting online purchase decision

Source: Author's own elaboration obtained from SPSS

Table 31, above present the Mann-Whitney U test results shows that there is no significant difference between the two groups, 'Inability to touch the fabric' and 'Lack of the multisensory experience' as levels of the variable of the item Q21 of the questionnaire, when considering the extent to which sensory absence discourages online purchases corresponding to item Q20. Also above (Table 32), shows the designated p-value is more than 0,0125 (after Bonferroni – adjusted), this suggests that the inability to touch and decide and the lack of multi-sensory experience are related to the decision of purchase online, being the second one slightly higher, but not significant after correction. This is also supported by the mean rank. Mann–Whitney tests (Bonferroni-adjusted $\alpha = ,0125$) showed that respondents who selected “unable to see the what the products really look like” reported significantly higher discouragement than those citing “inability to touch the fabric” ($p < ,001$), and “inability to touch the fabric” reported significantly higher discouragement than “not being able to try on the products”, whereas differences with other factors were non-significant. These findings partly accept the alternative hypothesis (Ha), confirming that sensory absence has an association with online purchasing decisions, though lack of visuals emerged as the strongest barrier.

H5 – To perform tests for this hypothesis, 'Agreement multisensory approaches> uni-sensory' and 'Extent encourage to purchase when multiple senses engaged' corresponding to items Q28 and Q29, respectively, of the questionnaire will be analysed. However, the item Q29 have as corresponding levels of the variable analysed 'Yes', 'No' and 'Not Sure'. After descriptive analysis the data indicates

that most respondents agree that multi-sensory strategies are more appealing than single-sensory strategies, as shown by the majority of responses falling into categories 4 and 5 on the Likert scale. However, normality tests were needed, and the Shapiro-Wilk indicate that the data is not normally distributed, which is expected for ordinal data.

Table 33. Normality tests - H5

| | Encouraged to purchase when multiple senses engaged | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
|---|---|---------------------------------|-----|-------|--------------|-----|-------|
| | | Statistic | df | Sig. | Statistic | df | Sig. |
| Agreement that multi-sensory > single-sensory | Yes | ,412 | 243 | <,001 | ,654 | 243 | <,001 |
| | No | ,441 | 4 | . | ,630 | 4 | ,001 |
| | Not Sure | ,435 | 56 | <,001 | ,643 | 56 | <,001 |

^a. Lilliefors Significance Correction

Source: Author's own elaboration obtained from SPSS

Since normality is not assumed and p-value <0,05 as seen above (Table 33), it was chosen to use the Kruskal-Wallis test, a non-parametric test, to compare the groups as seen below (Table 34). Multi-sensory vs single-sensory group comparisons involved ordinal scores and non-normal distributions across more than two categories, so Kruskal–Wallis was therefore appropriate.

Table 34. Non-Parametric test – Kruskal-Wallis - H5

| | Encouraged to purchase when multiple senses engaged | n | Mean Rank |
|--|---|-----|-----------|
| Agreement multi-sensory > single-sensory | Yes | 243 | 174,71 |
| | No | 4 | 54,13 |
| | Not Sure | 56 | 60,46 |
| | Total | 303 | |

Source: Author's own elaboration obtained from SPSS

Table 35. Kruskal-Wallis - H5

| Test Statistics^{a,b} | |
|--------------------------------------|--|
| | Agreement multi-sensory > single-sensory |
| Kruskal-Wallis H | 105,254 |
| df | 2 |
| Asymp. Sig. | <,001 |

^a. Kruskal Wallis Test

^b. Grouping Variable: Encouraged to purchase when multiple senses engaged

Source: Author's own elaboration obtained from SPSS

H₀: Multi-sensory strategies are not associated with purchase intention and loyalty more than single-sensory.

H_a: Multi-sensory strategies are associated with purchase intention and loyalty more than single-sensory.

Table 35, above, presents results for the test statistic (H) is 105,254 with 2 degrees of freedom, and the significance level is less than 0,001. The Kruskal-Wallis test reveals a statistically significant difference in the agreement that multi-sensory strategies are more appealing than single-sensory across different levels of encouraged to purchase when multiple senses engaged, as the assigned p-value is less than 0,001, which is much lower than the conventional significance level of 0,05. Therefore, we reject the null hypothesis (H₀) and confirm that multisensory strategies that multi-sensory strategies are more effective in purchase intention and loyalty than single-sensory approaches, accepting the alternative hypothesis (H_a). This is also supported by the mean rank.

H6 - To perform tests for this hypothesis, 'Likelihood to spend more time due to visuals' and 'Sensory element most affecting return' corresponding to items Q9 and Q25, respectively, of the questionnaire will be analysed. 'Visuals', 'Scent', 'Fabric texture' 'All of them' and 'None' are all levels of one of the variables corresponding to item Q25 of the questionnaire. In descriptive analysis the data indicates that visual elements have a significant relation with consumer behavior, with most respondents indicating a higher likelihood to explore or spend more time due to visuals. Normality tests were conducted and Shapiro-Wilk indicate that the data is not normally distributed, which is expected for ordinal data.

Table 36. Normality tests - H6

| | | Normality tests ^b | | | | | |
|---|----------------|---------------------------------|-----|-------|--------------|-----|-------|
| | | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
| Sensory element most affecting return | | Statistic | df | Sig. | Statistic | df | Sig. |
| Likelihood to spend more time due to visuals | Visuals | ,289 | 85 | <,001 | ,743 | 85 | <,001 |
| | Fabric texture | ,295 | 56 | <,001 | ,787 | 56 | <,001 |
| | All of them | ,440 | 159 | <,001 | ,447 | 159 | <,001 |
| | None | . | 2 | . | . | | |

^a. Lilliefors Significance Correction

^bLikelihood to spend more time due to visuals is constant when Sensory most affecting return = Scent. It was omitted.

Source: Autho's own elaboration obtained from SPSS

Since normality is not assumed and p-value <0,05 is observed above (Table 36), it was chosen to use the Kruskal-Wallis test, a non-parametric test, to compare the groups as shown below (Table 37). Visual-elements scores and behaviour comparisons across groups violated normality and/or involved more than two categories, so Kruskal–Wallis was appropriate.

Table 37. Non-Parametric test – Kruskal-Wallis - H6

| | Sensory element most affecting return | n | Mean Rank |
|---|--|----------|------------------|
| Likelihood to spend more time due to visuals | Visuals | 85 | 176,21 |
| | Scent | 1 | 262,00 |
| | Fabric texture | 56 | 161,75 |
| | All of them | 159 | 136,74 |
| | None | 2 | 8,00 |
| | Total | 303 | |

Source: Author's own elaboration obtained from SPSS

Table 38. Kruskal-Wallis - H6

| Test Statistics^{a,b} | |
|--------------------------------------|---|
| | Likelihood to spend more time due to visuals |
| Kruskal-Wallis H | 26,338 |
| df | 4 |
| Asymp. Sig. | <,001 |

^{a.} Kruskal Wallis Test

^{b.} Grouping Variable: Sensory element most affecting return

Source: Author's own elaboration obtained from SPSS

H₀: Visual elements like lighting and colour do not associate with consumer behavior.

H_a: Visual elements like lighting and colour significantly relate to consumer behavior.

The results of Kruskal-Wallis observed above (Table 38) shows that the test statistic (H) is 26,338 with 4 degrees of freedom, and the significance level is less than 0,001. The Kruskal-Wallis test reveals a statistically relationship in the likelihood to explore or spend more time due to visuals across different sensory elements, as the assigned p-value is less than 0,001, which is much lower than the conventional significance level of 0,05. Therefore, we reject the null hypothesis (H₀) and confirm that visual elements like lighting and colour do significantly relate with consumer behaviour, specifically in terms of encouraging them to spend more time in a store, accepting the alternative hypothesis (H_a). Although the largest number of participants (N = 159) selected “all of them” as the factor most affecting return, the mean ranks indicate that the strongest factor to spend more time in store was “Visuals” followed by “fabric texture”, the option “Scent” will not be acknowledge since only had one response. This suggests that while all of the sensory elements, is the most frequently cited factor, visuals and fabric texture generate higher levels of likelihood to spend more time in store. Mean ranks support this analysis.

H7 - To perform tests for this hypothesis, ‘Respondent’s gender’ and ‘Overall senses influence to purchase’ corresponding to items Q1 and Q15, respectively, of the questionnaire will be analysed. ‘Female’ and ‘Male’ are levels of one of the variables corresponding to the item Q1 of the

questionnaire. Regarding the assumption that data has a normal distribution, descriptive analysis indicates that the data indeed meets the assumption since the number of respondents female is more than 30, as well as the male is more than 30.

H₀: The effects of music, scent, sight and touch stimuli on textile purchase behaviour does not differ by the gender of consumers.

H_a: The effects of music, scent, sight and touch stimuli on textile purchase behaviour differs significantly by the gender of consumers.

Table 39 below, shows that Levene's test was conducted to check homogeneous variances in different groups, having at this point created a new null hypothesis where variance of females equals variance in males, H₀: var (females) = var (males); and a new alternative hypothesis where the variance of females differs variance in males, H_a: var (females) ≠ var (males). The p-value for Levene's Test is 0,313, which is greater than 0,05. This means we fail to reject the new null hypothesis (H₀), indicating that the independent samples are homogeneous, and equal variance is assumed. Since the p-value associated is more than 0,05 the results indicate that there is not a statistically difference between the purchase behaviour for females and males. Since the variances are homogeneous and p-value >0,05, it was proceeded with the independent samples t-test to compare the means of the two groups. The Independent Samples t-test is appropriate for comparing the means of two independent groups when the data is normally distributed.

Table 39. Non-Parametric test – Levene's - H7

| Group Statistics | | | | | |
|--|---------------------|-----|------|----------------|-----------------|
| | Respondent's Gender | n | Mean | Std. Deviation | Std. Error Mean |
| Overall influence of sensory elements | Female | 184 | 3,91 | ,787 | ,058 |
| | Male | 119 | 3,98 | ,844 | 0,77 |

Source: Author's own elaboration obtained from SPSS

Table 40. Levene's test - H7

| Independent Samples test | | | | | | | | | | |
|--|----------------------------|---|------|-------|---------|----------------|------------------------------|-----------------------|---|-------|
| | | Levene's Test for Equality of Variances | | | | | t-test for Equality of Means | | | |
| | | F | Sig. | t | df | Sig.(2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence interval of the difference | |
| | | | | | | | | Lower | | Upper |
| Overall influence of sensory elements | Equal Variance assumed | 1,023 | ,313 | -,793 | 301 | ,428 | -,076 | ,095 | -,263 | ,112 |
| | Equal Variance not assumed | | | -,782 | 239,408 | ,435 | -,076 | ,097 | -,266 | ,115 |

Source: Author's own elaboration obtained from SPSS

Table 40 above, indicates that the t-test value is - 0,793 with degrees of freedom equals to 301 and the p-value (2-tailed) is 0,428. Since the associated p-value is greater than 0,05, meaning we fail to reject the null hypothesis (H0). This suggests that there is no statistically significant difference in the overall relation of sensory elements on textile purchase behavior between females and males. The 95% confidence interval for the difference in means goes from - 0,263 to 0,112. This interval includes zero, further supporting the conclusion that there is no significant difference between the two groups.

The statistical analysis does not provide evidence to support the alternative hypothesis (Ha) that there is a significant difference in the effects of sensory stimuli on textile purchase behavior by gender. Failing to reject the null hypothesis (H0) it is possible to conclude that, the effects of music, scent, sight, and touch stimuli on textile purchase behavior do not differ significantly by the gender of consumers.

H8 - To perform tests for this hypothesis, 'Respondent's Age Range' and 'Influence of in-store visual aesthetics' corresponding to items Q2 and Q8, respectively, of the questionnaire will be analysed. However, '18-25', '26-35', '36-45', '46-65' and '66+' are levels of one of the variables corresponding to the item Q2 of the questionnaire. Descriptive analysis was conducted and the data shows that the sample is fairly evenly distributed across the age groups, with most respondents rating the influence of in-store visual aesthetics as a 4 in a 1 to 5 Likert scale, indicating a strong association. However, normality tests were needed, and the Shapiro-Wilk indicate that the data is not normally distributed, which is expected for ordinal data.

Table 41. Normality tests - H8

| | Respondents' Age Range | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
|--|------------------------|---------------------------------|-----|-------|--------------|-----|-------|
| | | Statistic | df | Sig. | Statistic | df | Sig. |
| Influence of in-store visual aesthetics | 18-25 | ,384 | 52 | <,001 | ,750 | 52 | <,001 |
| | 26-35 | ,266 | 80 | <,001 | ,763 | 80 | <,001 |
| | 36-45 | ,382 | 104 | <,001 | ,722 | 104 | <,001 |
| | 46-65 | ,453 | 56 | <,001 | ,578 | 56 | <,001 |
| | 66+ | ,401 | 11 | <,001 | ,625 | 11 | <,001 |

^a. Lilliefors Significance Correction

Source: Author's own elaboration obtained from SPSS

Normality tests, were needed and Shapiro-Wilk above (Table 41), indicate that the data show significance as p-value is less than 0,001 across all age groups, suggesting that the data does not follow a normal distribution, so non-parametrical tests, Spearman correlation, was applied to verify the validity of the hypothesis. Age (ordinal) and visual aesthetics/willingness scores were non-normal or ordinal, so the use of Spearman's rho to measure association was appropriate.

Table 42. Spearman Correlation - H8

| Correlations | | | | Influence of in-store visual aesthetics | Respondents' Age Range |
|---------------------------|---|--------------------------|-------------------------|--|-----------------------------------|
| Spearman's rho | Influence of in- store visual aesthetics | of in- visual | Correlation Coefficient | 1,000 | ,013 |
| | | | Sig. (2-tailed) | . | ,821 |
| | | | n | 303 | 303 |
| | Respondents' Age Range | Age | Correlation Coefficient | ,013 | 1,000 |
| | | | Sig. (2-tailed) | ,821 | |
| | | | n | 303 | 303 |

Source: Author's own elaboration obtained from SPSS

H₀: There is no difference in visual aesthetics and willingness to purchase by age.

H_a: Visual aesthetics and willingness to purchase differ by age.

The results above (Table 42), indicates that Spearman's rank correlation coefficient (rho) is 0,013, indicating a very weak, almost negligible, positive correlation between the influence of in-store visual aesthetics and the respondent's age range. The observation numbers are n=303. The p-value associated is 0,821 which is much higher than the conventional significance level of 0,05; indicating that the correlation is not statistically significant, meaning we fail to reject H₀.

Since the age distribution is relatively even, which is good for generalizing the results across different age groups and the majority of respondents feel that in-store visual aesthetics have a strong influence on them, there is no significant correlation between age and the perceived influence of in-store visual aesthetics. This suggests that the association is relatively consistent across different age groups, not providing evidence to support the alternative hypothesis (H_a).

Table 43. Summary table of hypothesis

| H | Variables | Applied Test | Result | P-value |
|----------|---|-------------------------------------|---------------|----------------|
| H1 | Q8 (In-store visual aesthetics influence on purchase), Q15 (Overall senses influence to purchase) | Pearson Correlation (r = 0,461) | Accept | p < 0,001 |
| H2 - A | Q11 (Influence by store scent), Q16 (Likelihood to spend more time due to scent) | Kruskal – Wallis | Accept | p < 0,001 |
| H2 - B | Q12 (Extent scent affect shopping), Q16 (Likelihood to spend more time due to scent) | Spearman Correlation (r = 0,630) | Accept | p < 0,001 |
| H3 | Q13 (Impact of background music), Q17(Likelihood to spend more time due to music) | Spearman Correlation (r = 0,730) | Accept | p < 0,001 |

Source: Author's own elaboration

Table 44. Summary table of hypothesis - continuation

| H | Variables | Applied Test | Result | P-value |
|----|---|---|------------------|-----------|
| H4 | Q20(Extent sensory absence discourages online purchases), Q21(Factor most affecting online purchase decision) | Kruskal – Wallis; Post-hoc Mann – Whitney | Partially Accept | p < 0,001 |
| H5 | Q28(Agreement multisensory approaches> uni-sensory), Q29(Extent encourage to purchase when multiple senses engaged) | Kruskal – Wallis | Accept | p < 0,001 |
| H6 | Q9 (Likelihood to spend more time sue to visuals), Q25 (sensory element most affecting return) | Kruskal – Wallis | Accept | p < 0,001 |
| H7 | Q1 (Respondent's gender), Q15 (Overall senses influence to purchase) | Independent Samples test | Not Accept | p = 0,428 |
| H8 | Q2 (Respondent's Age range), Q8 (In-store visual aesthetics influence on purchase) | Spearman Correlation (r = 0,013) | Not Accept | p = 0,821 |

Source: Author's own elaboration

The results summarised above in both tables, (Table 43) and (Table 44), provide an overview of the statistical outcomes for each hypothesis tested. The following section discusses these findings relating them to the existing literature and the objectives of this research, highlighting their theoretical and practical implications.

4. Discussion of Results

The hypotheses proposed in this research were analysed using appropriate statistical tests, and the results confirmed most of the theoretical assumptions outlined in the literature. The first six hypotheses (H1–H6) were confirmed, while H4 was only partially confirmed and H7 and H8 were not confirmed. These results provide empirical and theoretical insights into the role of sensory marketing in consumer behaviour in textile retail environments.

H1 was supported, confirming that visual aesthetics such as lighting, colour, and overall store design have a significant positive association on consumers' willingness to purchase. This result is in line with Pollák et al., (2021), who emphasised the visual sense as the most dominant in consumer perception and as a key factor in forming purchase intentions. The acceptance of this hypothesis reinforces the importance of visual merchandising in enhancing attention and stimulating behaviour and purchase intent within the textile retail environment.

H2 was supported, indicating that pleasant ambient scents in retail environments are positively related to customer satisfaction and time spent in-store. This finding aligns with Rathnayaka (2022) who found that olfactory stimuli positively affect emotions and memory, strengthening the emotional connection between consumers and brands. The confirmation of H2 demonstrates that scent contributes to the creation of a pleasant atmosphere that encourages prolonged engagement and repeat visits.

H3 was supported, revealing that background music is positively associated with customer satisfaction and time spent in-store. This outcome supports the conclusions of Krishna (2012) and Pollák et al., (2021), who described sound as a central component of the sensory experience capable of influencing mood and purchasing behaviour. The acceptance of H3 suggests that auditory elements play a decisive role in enhancing emotional connection and overall experience of textile shoppers.

H4 was partially supported. Although the absence of sensory engagement in online shopping generally reduced purchase likelihood, confirming findings by (Li et al., 2022) and Rathnayaka (2022), who emphasised the limitation of online retail in providing multi-sensory stimulation and the role of fabric through its hand feel; the specific assumption that the inability to touch the fabric was the main discouraging factor was not fully confirmed. Post-hoc analysis showed that while tactile absence was highly cited, other factors, such as the inability see the products or lack of multisensory experience, were equally or more influential. This nuance broadens the understanding of sensory deprivation in online contexts and highlights the complexity of consumer hesitation in digital environments.

H5 was supported, demonstrating that multi-sensory marketing strategies generate a stronger association with purchase intention and brand loyalty than single-sensory approaches. This finding supports Velasco's (2021) argument that multisensory integration enhances consumer engagement by increasing brand perception and creates a more immersive and memorable consumer experience

influencing in purchase behaviour. The acceptance of H5 confirms that coherent sensory design fosters stronger emotional connections and repeat purchase behaviour.

H6 was supported, confirming that visual elements such as lighting and colour significantly relate to consumers' behaviour and time spent in-store. This aligns with Pajonk and Plevová (2015) and Pollák et al., (2021) view, which underline the importance of creating environmental appealing designs, that has a positive association with affective and behavioural responses. The result validates the notion that well-designed store atmospheres can effectively guide consumer attention and engagement.

H7 was not supported. No significant differences were found between male and female respondents in their evaluation of sensory stimuli. This diverges from the assumption in some literature that women display higher sensory sensitivity (as discussed Pollák et al., (2021) that the relation of all senses in-store may show different outputs when analysed by gender. The lack of significance may be explained by cultural or contextual factors, or by increasing convergence in consumer expectations across genders in modern retail.

H8 was also not supported, as no significant differences were found across age groups in responses to visual aesthetics and willingness to purchase. This contrasts with the suggestion (Rathnayaka, 2022) that attracting consumers with sensory visuals it could be difficult as it may vary the preferences in terms of demographics. In this study, results indicate that the sensory stimuli implemented in textile stores appeal broadly to consumers, regardless of age, reflecting a more universal sensory relation in the retail experience and minimising perceptual differences.

In summary, these results confirm the dominant association of visual, olfactory, auditory and haptic stimuli on consumer behaviour and support much of the existing literature on sensory marketing. The findings further suggest that demographic factors such as gender and age exert less association on sensory responsiveness than previously assumed, highlighting the universal appeal of multi-sensory strategies within the textile sector.

Conclusions, Limitations and Future Research Lines

The present research paper aimed to examine the association of sensory marketing on consumer behaviour within the textile sector, with particular focus on the influence of sensory stimuli in both physical and online retail environments. Through a quantitative approach, the research desire to determine which sensory cues most effectively influence purchasing decisions and brand loyalty.

The findings demonstrated that sensory marketing plays a significant role in shaping consumer perceptions, emotions, and actions, thereby confirming its growing importance as a strategic tool for differentiation in an increasingly competitive market. While sensory marketing significantly enhances consumer engagement and brand loyalty, it also presents challenges that needs careful management to avoid sensory overload and ensure cost-effectiveness, the need for cultural sensitivity, the high costs of creating multisensory environments, and the ethical considerations of manipulating consumer emotions through sensory stimuli are significant factors that marketers must consider.

The results of the study confirmed that visual aesthetics, including lighting, colour, and overall store design, have a strong positive relationship with purchase intention and willingness to spend time in-store. Scent and sound were also found to enhance customer satisfaction and engagement, leading to a positively relation with time spent within retail spaces and greater likelihood of returning to the store. Furthermore, the research showed that multi-sensory strategies, those integrating several sensory elements simultaneously, are more effective in strengthening brand loyalty and stimulating positive consumer behaviour than single-sensory approaches. In contrast, the online shopping environment was found to limit consumer engagement due to the absence of tactile and atmospheric stimuli, which highlights the continuing relevance of physical stores in delivering rich and memorable sensory experiences.

From a theoretical perspective, this study contributes to the development of literature on sensory marketing by reinforcing the multi-sensory nature of consumer decision-making and by validating the importance of sensory consistency across the retail experience. It also provides empirical evidence supporting the assumption that sensory stimuli not only is related to emotional responses but also associated with measurable behavioural outcomes such as time spent in-store and purchase intention. By analysing the textile sector, a context still underexplored in the sensory marketing field, the research extends existing knowledge and offers a foundation for comparative studies across different industries.

Overall, H1–H6 confirmed the positive association of sensory elements on consumer behaviour, consistent with the theoretical perspectives of Krishna (2011) and Rathnayaka (2022), which emphasise the multisensory nature of consumer perception. In contrast, H7 and H8 revealed no significant demographic moderating effects, suggesting that sensory marketing operates similarly across gender and age groups within the textile sector.

Managerial Implications

At a managerial level, the findings emphasise the need for retailers to design store environments that engage multiple senses simultaneously, as this approach was shown to enhance customer satisfaction, brand loyalty, and purchase intention. Marketers should, therefore, invest in creating coherent sensory atmospheres, aligning visual, auditory, haptic, and olfactory cues with the brand identity and the expectations of target consumers, also with innovation it was possible to observe that inclusion of gustatory sensory experiences in the textile retail environments it is a reality. Furthermore, the integration of sensory elements into online platforms, through high-quality visuals, detailed fabric descriptions, or interactive media, may partially mitigate the limitations of digital shopping and improve the consumer experience in virtual settings, since it brings the idea of shopping in a physical store closer and closer to the virtual world, and that is very welcomed by the consumers.

Despite its contributions, the study is not without limitations. Although the population sample of 303 is appropriate, the use of a non-probabilistic snowball sample restricts the generalisation of results to the entire consumer population, as limits external validity. Additionally, the study relied on self-reported perceptions, which may not fully capture real behavioural responses when compared to direct exposure in a real retail environment. Finally, some of the data were collected through self-administered questionnaires, suggesting that some of the responses may have been influenced by participants' subjective interpretations or social acceptability, potentially biasing the reporting of their perceptions and behaviours.

Future Research

Future research could therefore adopt experimental or longitudinal designs to observe the direct effects of sensory stimuli on actual purchasing behaviour. Comparative studies between different retail sectors or cultural contexts could also enrich understanding of how sensory preferences vary among consumer groups. Also, reaching a larger population, or from busier and more relevant cities, could also enrich this same study or even create a comparison study, of the influence of sensory marketing between the coast and the interior cities of the country.

In conclusion, the research has shown that sensory marketing represents a powerful and essential strategy for enhancing consumer engagement within the textile industry. By appealing to multiple senses, retailers can create immersive and memorable experiences that go beyond product functionality and price, fostering stronger emotional connections and long-term loyalty. The findings underline that, even in an increasingly digital world, the sensory dimension of marketing in physical stores remains a vital element of successful retail management and consumer experience design, with increasingly innovative experiences, but always with a view to maintaining and increasing customer satisfaction.

References

- Abdin, Z. U., Manzoor, S. F., Shahzad, K., Aleem, T., & Mustafa, S. (2025). When the Senses Drive Loyalty: The Impact of Multi-sensory Marketing and Service Quality on Store Revisit Intention. *Contemporary Journal of Social Science Review*, 3(3), 2220-2241. <https://doi.org/10.63878/cjssr.v3i3.1248>
- Agapito, D. (2022). *Marketing Sensorial: casos no retalho, hospitalidade e turismo*. 1ª edição. Sílabas & Desafios. <https://doi.org/10.37548/MSEN.2022>
- Alfikry, A., Widodo, A., Silvianita, A., & Rubiyanti, N. (2024). The Effect of Sensory Marketing, Brand Experience, Brand Image, and Perceived Service Quality on Brand Loyalty with Customer Satisfaction as an Intervening Variable (Study Conducted on Luxury Brand Product Consumers): A Conceptual Paper. *International Journal of Scientific Multidisciplinary Research*, 2(5), 523-538. <https://doi.org/10.55927/ijsmr.v2i5.9424>
- Alordiah, C. O., & Ossai, J. N. (2023). Enhancing Questionnaire Design: Theoretical Perspectives on Capturing Attitudes and Beliefs in Social Studies Research. *International Journal of Innovative Science and Research Technology*, 8(10), 603-614.
- Bhatia, R., Garg, R., Chhikara, R., Kataria, A., & Talwar, V. (2021). Sensory marketing—a review and research agenda. *Academy of Marketing Studies Journal*, 25(4), 1-30. <https://doi:1528-2678-25-4-452>.
- Cechi, H. (2024, March 4). *Unlock Sensory Marketing: What it is and Why it Works*. Glion. <https://www.glion.edu/magazine/what-is-sensory-marketing/>
- Doucé, L., & Adams, C. (2020). Sensory overload in a shopping environment: Not every sensory modality leads to too much stimulation. *Journal of Retailing and Consumer Services*, 57, 102154. <https://doi.org/10.1016/j.jretconser.2020.102154>
- Dubey, U. K. B., & Kothari, D. P. (2022). *Research methodology: Techniques and trends*. Chapman and Hall/CRC. <https://doi.org/10.1201/9781315167138>
- Dueñas, P. P. M., & Gómez-Carmona, D. (2022). Aplicación de las técnicas de marketing sensorial en los establecimientos de moda: el caso de Zara y Stradivarius. *Vivat Academia. Revista de la Comunicación*, 155, 17–32. <https://doi.org/10.15178/va.2022.155.e1392>
- Fondevila-Gascón, J. F., Martín-Guart, R. F., Aragón, Ó. G., & Tarrés, M. C. (2024). Brand perception and the role of the point of sale in the experience of purchase: Case study. *Cuadernos del Centro de Estudios en Diseño y Comunicación. Ensayos*, (248), 155-170.
- Gulati, H., & Roy, S. (2021). Analysis of sensory marketing on consumers at retail stores. *Information Technology in Industry*, 9(1), 736-744. <https://doi.org/10.17762/itii.v9i1.194>

- Jang, S. Y., & Ha, J. (2021). The influence of tactile information on the human evaluation of tactile properties. *Fashion and Textiles*, 8(1). <https://doi.org/10.1186/s40691-020-00242-5>
- Jiménez-Marín, G., Del Mar Ramírez Alvarado, M., & González-Oñate, C. (2022). Application of Sensory Marketing Techniques at Marengo, a Small Sustainable Men's Fashion Store in Spain: Based on the Hulten, Broweus and van Dijk Model. *Sustainability*, 14(19), 12547. <https://doi.org/10.3390/su141912547>
- Kaushik, S., & Gokhale, N. (2021). Online sensory marketing: Developing five-dimensional multi-sensory brand experiences and its effectiveness. *Revista Geintec-Gestao Inovacao E Tecnologias*, 11(4), 5375-5391. <https://doi.org/10.47059/revistageintec.v11i4.2567>
- Kothari, S., & Sharma, M. (2024). Impact of sensory marketing on brand loyalty and consumers' purchase intention: a quantitative study in the QSR industry. *International Journal of Business and Globalisation*, 38(4), 497-514. <https://doi.org/10.1504/IJBG.2024.142437>
- Krishna, A., Luangrath, A. W., & Peck, J. (2024). A review of touch research in consumer psychology. *Journal of Consumer Psychology*, 34(2), 359-381. <https://doi.org/10.1002/jcpy.1413>
- Le, N., Mai, N. T. B., Nguyen, N. Y. T., & Vu, H. N. T. (2024). Multi-Sensory marketing and impulsive buying behavior: The role of impulsive buying traits. *Emerging Science Journal*, 8(5), 1764–1782. <https://doi.org/10.28991/esj-2024-08-05-05>
- Leavy, P. (2022). *Research Design: Quantitative, Qualitative, Mixed Methods, Arts-Based and Community-Based Participatory Research Approaches*. (2nd ed.). Guilford Publications.
- Li, P., Guo, X., Wu, C., & Spence, C. (2022). How multisensory perception promotes purchase intent in the context of clothing e-customisation. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1039875>
- Moura, V. (2024, September 4). *Um vestido e um pastel de nata, por favor! Há uma cafetaria dentro da Zara do Rossio*. Time Out Lisboa. <https://www.timeout.pt/lisboa/pt/noticias/um-vestido-e-um-pastel-de-nata-por-favor-ha-uma-cafetaria-dentro-da-zara-do-rossio-090424>
- Ntobela, T. S., & Mbukanma, I. (2023). Exploring the impact of sensory marketing on impulsive buying behaviour of millennials in Mthatha, Eastern Cape, South Africa. *Academic Journal of Interdisciplinary Studies*, 12(5), 192-200. <https://doi.org/10.36941/ajis-2023-0137>
- Pollák, F., Soviar, J., & Vavrek, R. (2021). Sensory marketing. In *IntechOpen eBooks*. <https://doi.org/10.5772/intechopen.100378>
- Rahayu, N. I., Muktiarni, M., & Hidayat, Y. (2024). An Application of Statistical Testing: A guide to basic parametric statistics in educational research using SPSS. *ASEAN Journal of Science and Engineering*, 4(3), 569–582. <https://doi.org/10.17509/ajse.v4i3.76092>

- Rathnayaka, U. (2022). Sensory Brand Experience: An Empirical Literature survey. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4016361>
- Roggeveen, A. L., & Sethuraman, R. (2020). How the COVID-19 pandemic may change the world of retailing. *Journal of retailing*, 96(2), 169-171. <https://doi.org/10.1016/j.jretai.2020.04.002>
- RVSPK, R., Priyanath, H. M. S., & Megama, R. G. N. (2020). Methods and rules-of-thumb in the determination of minimum sample size when applying structural equation modelling: A review. *Journal of Social Science Research*, 15(2), 102-109. <https://doi.org/10.24297/jssr.v15i.8670>
- Shahid, S., Paul, J., Gilal, F. G., & Ansari, S. (2022). The role of sensory marketing and brand experience in building emotional attachment and brand loyalty in luxury retail stores. *Psychology and Marketing*, 39(7), 1398–1412. <https://doi.org/10.1002/mar.21661>
- Singh, K. K. (2022). *Research methodology in social science*. KK Publications.
- Tekin, S., & Kanat, S. (2022). The effects of sensory Marketing on Clothing-Buying Behavior. *Autex Research Journal*, 23(3), 315–322. <https://doi.org/10.2478/aut-2022-0016>
- Torabi, A., Hamidi, H., & Safaie, N. (2021). Effect of sensory experience on customer word-of-mouth intention, considering the roles of customer emotions, satisfaction, and loyalty. *International Journal of Engineering: Transactions C - Aspects*, 34(3). <https://doi.org/10.5829/ije.2021.34.03c.13>
- Ustazah, E. N., Setijanti, P., & Hayati, A. (2025). Experiential retailing in cultural spaces: A case study of multisensory design in batik boutiques. *F1000Research*, 14, 506. <https://doi.org/10.12688/f1000research.163519.2>
- Velasco, C., Sunaga, T., Narumi, T., Motoki, K., Spence, C., & Petit, O. (2021). Multisensory consumer-computer interaction. *Journal of Business Research*, 134, 716–719. <https://doi.org/10.1016/j.jbusres.2021.06.041>
- Yamini, P. & Nisha, U. (2024). Impact of Sensory Marketing on Consumer Satisfaction. *International Journal for Multidisciplinary Research*, 6(2). <https://doi.org/10.36948/ijfmr.2024.v06i02.18954>
- Zha, D., Foroudi, P., Melewar, T. C., & Jin, Z. (2024). Examining the impact of sensory brand experience on brand loyalty. *Corporate Reputation Review*, 28(1), 14–42. <https://doi.org/10.1057/s41299-023-00175-x>
- Zaghloul, T. M., Wafik, G. M., & Mohamed, M. E. (2024). The Impact of Multi-Sensory Marketing on Destination Branding as Applied to Aswan City, Egypt. *Minia Journal of Tourism and Hospitality Research MJTHR*, 18(2), 125-145. <https://10.21608/mjthr.2024.323069.1181>

Appendix 1

Questionnaire

This study will be carried out as part of the Master's degree in Organisational Management at the School of Technology and Management of the Polytechnic Institute of Bragança. You are invited to take part in the study entitled " The Power of Sensory Marketing on Consumer Behaviour: a case study on Textile Sector".

Section 1: Sociodemographic Information

1. Gender

Female; Male; Prefer not to say

2. Age

18-25

26-35

36-45

46-65

66 +

3. How frequently do you shop for textile products?

Weekly

Monthly

Every 3-6 months

Rarely

Section 2: General Shopping Behavior

4. At what time of the year do you shop most often?

Arrival of new collections (e.g. spring, autumn)

Sales and promotions (e.g. Black Friday, seasonal sales)

Change of season (e.g. changing clothes for winter or summer)

Holidays and commemorative dates (e.g. Christmas, New Year's Eve, Easter, Birthday)

All of the above

5. Where do you primarily shop for textile products?

Physical stores; Online stores; Both equally

6. What factors influence your textile purchasing decisions the most? (More than 1 option available)

Price

Brand

Quality

Store ambiance

Sensory experience

Employee empathy

7. How important is the in-store shopping experience for you?

Likert Scale (1 = Not important; 5 = Very important)

Section 3: Sensory Marketing in Physical Stores

8. How much do visual aesthetics in-store (lighting, colour, store design) influence your decision to purchase textile products?

Likert Scale (1 = Not at all likely; 5 = Very likely)

9. How likely are you to explore more products or spend more time in a textile store with visually appealing displays, colours, and lighting?

Likert Scale (1 = Not at all likely; 5 = Very likely)

10. How important is the ability to touch fabrics before purchasing?

Likert Scale (1 = Not important; 5 = Very important)

11. Have you ever been influenced by the scent of a store while shopping for textiles?

Yes; No; Not sure

12. How much does ambient scent affect your shopping experience?

Likert Scale (1 = Not at all likely; 5 = Very likely)

13. How much does background music in a textile store impact your shopping experience?

Likert Scale (1 = Not at all likely; 5 = Very likely)

14. Do you tend to spend more time in stores with a pleasant ambiance?

Yes; No; Depends on other factors

15. How much do sensory elements (visual, scent, sound, touch) collectively influence your willingness to purchase?

Likert Scale (1 = Not at all likely; 5 = Very likely)

16. How likely are you to spend more time in a store if it has a pleasant scent?

Likert Scale (1 = Not at all likely; 5 = Very likely)

17. How likely are you to stay longer in a store that plays music you enjoy?

Likert Scale (1 = Not at all likely; 5 = Very likely)

Section 4: Online Shopping vs. Physical Stores

18. How often do you purchase textile products online?

Always; Frequently; Occasionally; Rarely; Never

19. What are the main challenges of buying textiles online?

Lack of sensory experience

Quality uncertainty

Returns/refunds

Delivery time

All of the above

20. To what extent does the absence of sensory engagement (touching fabrics, store ambiance) discourage you from purchasing online?

Likert Scale (1 = Not at all likely; 5 = Very likely)

21. Which of the following, related to the absence of sensory engagement, would be what affects you the most to make the decision of not buying online?

Inability to touch the fabric

Store ambiance

Not being able to try on the products

Being unable to see what the products really look like

Lack of the multi-sensory experience

22. Would you be more likely to purchase online if enhanced sensory descriptions (e.g., high-quality images, fabric videos, models (people) in various sizes, costumers feedback) were available?

Yes; No; Maybe

Section 5: Multi-Sensory Marketing Strategies & Customer Loyalty

23. Have you ever been influenced to revisit a textile store due to its sensory elements?

Yes; No; Not sure

24. How much do sensory experiences in a store contribute to brand loyalty?

Likert Scale (1 = Not at all likely; 5 = Very likely)

25. Which sensory element has the strongest impact on your decision to return to a textile store?

Visuals

Scent

Music

Fabric texture

All of them

None

26. Do you prefer stores that provide a multi-sensory experience over those that do not?

Yes; No; No preference

27. Have you recommended a textile store to someone because of its sensory experience?

Yes; No; Not Sure

28. To what extent do you agree that stores with multi-sensory marketing are more appealing than those with single-sensory approaches?

Likert Scale (1 = Strongly disagree; 5 = Strongly agree)

29. Do you feel more encouraged to purchase when multiple senses (sight, touch, sound, scent) are engaged compared to just one?

Yes; No; Not sure

Section 6: Sensory Preferences by Demographics

30. Do you think sensory marketing appeals differently to different age groups?

Yes; No; Not sure

31. Do you believe men and women perceive sensory marketing differently in textile retail?

Yes; No; Not sure

32. To what extent do you think that the female gender has greater sensitivity/awareness of sensory marketing in the retail sector?

Likert Scale (1 = Not at all likely; 5 = Very likely)

33. What would improve your in-store shopping experience the most?

A more neutral colour and lighting scheme for the aesthetic

Interactive displays

Stronger brand identity

Relaxed ambience with soft music and scent

Other