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The effect of a sensory experiential set on purchase intention in a retail environment.

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ABSTRACT

This research is focused on the sensory dimension of experiential marketing. We argue that a brand that sells in a retail setting can improve its marketing key performance indicators by exposing its store visitors to various combinations of sensory cues that simulate a real-life consumption situation. We intended to prove that combinations of visual cues (store design) and auditory cues (sound condition) yield different levels of purchase intention. Through an online study, we discovered that sound-zoning is superior to other versions of sound conditions in driving purchase intention in a retail store. This relationship was mediated by mental simulation, and store likability, such that customers exposed to better sound conditions reported higher levels of store likability and mental simulation, and as a consequence, purchase intentions. We also discussed how managers could use in-store sounds and store design, depending on their immediate goals.

Keywords: Experiential Marketing; Sensory Stimuli; Cue Congruence; Mental Simulation; Store Likability; Brand Familiarity; Purchase Intention; Retail Store

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1. INTRODUCTION

Customers are increasingly demanding fun and interactive shopping experiences. This tendency has made shopping enjoyment paramount for staying competitive in today's markets (Grundey, 2008). As companies were urged to comply with increasing customer expectations, they drew upon experiential marketing as a reliable means to increase business profitability. Experiential marketing primarily manipulates atmospheric elements to offer "that little extra" that enables companies to differentiate the brand from competitors, to ensure that customers enjoy the shopping experience and to facilitate their purchase decision-making process. The contemporary business arena depicts all range of practical applications of experiential marketing, from leveraging emerging technologies such as virtual reality (Coca-Cola) to pop-up experiential stores such as IKEA's "Breakfast in Bed Café."

Thus, the practical application of experiential marketing is not dogmatic in terms of which atmospheric elements should be employed to achieve the desired results. Even so, brick-and-mortar stores are most likely to employ sensory stimuli for designing in-store experiences that would positively impact store results. The effects of exposing customers to artificially created sensory cues have been extensively studied as part of the sensory dimension within experiential marketing. Within sensory marketing, literature provides studies of its effects on: customer behaviour and brand attitude (Bitner, 1986; Booms & Bitner, 1983; Kotler, 1974; Parasuraman, Zeithaml, & Berry, 1985; Shostack & Lynn Shostack, 1977), time spent lingering in a location (Krishna, 2012) and the average amount spent by customers (Areni & Kim, 1993). The book "Experiential Marketing" (Smilansky, 2017) described a case in which a kids' dancewear brand applied an experiential set strategy composed of branded pink floors along with a ballet bar and mirrors, as an attempt to drive sales. Inspired by this practical application of experiential marketing, we wanted to explore how exposing customers to an experiential set that simulates a real-life consumption situation, would drive purchase intention.

1.1 Research Question

The potential of improving store outcomes through sensory marketing has gained popularity in the marketing field. Extensive research has been conducted to study the mechanisms through which targeting customers' external perception senses with sensory cues influences store outcomes (time spent in the store, purchase intention). Sound and physical environment are two of the most frequently studied sensory stimuli since they are easy to apply and are proven to impact store results strongly. For instance, research shows that in restaurants and retail stores, sound positively influences the time that customers spend in a location (Krishna, 2012), their product choice (North, Hargreaves, & McKendrick, 1997), their shopping pace (Milliman, 1982), and their shopping amount spent (Areni & Kim, 1993). As for the physical environment, studies proved that lighting (Areni & Kim, 1994), design (Baker, Grewal, & Parasuraman, 1994) and decorative style (Ward, 1994) influence customers' behaviour and their opinion about the company itself (Bitner, 1986; Booms & Bitner, 1983; Kotler, 1974; Parasuraman et al., 1985; Shostack & Shostack, 1977).

To the best of our knowledge, there was no peer-reviewed article that addresses the impact of a combination of stimuli that simulates a real-life consumption situation on purchase intention, in a retail environment. We explain that a store environment that emulates a real-life consumption situation is a setting that was designed to prompt store visitors to experience the products in a similar way as they would experience them in a consumption situation. For instance, Rituals, a Dutch cosmetic brand, has successfully conveyed a real-life consumption situation in their stores by installing bathroom mirrors and sinks with their products and towels displayed on the sink, just as customers would have in their homes. Inspired by this retailer, we explored whether customers who were exposed to a combination of sensory cues that simulates a real-life consumption situation would report a higher level of purchase intention than customers who were exposed to sensory stimuli that were designed merely to make the in-store environment more pleasant. Hence, the research question on our study is:

How will an experiential set simulative of a real-life consumption situation influence customers' purchase intention in a retail setting, through auditory and visual cues?

Moreover, assuming that the relationship between sensory stimuli and purchase intention would be proved as positive, we wanted to understand the mechanisms that drive this relationship as the body of literature is still lacking comprehensive explanations of the mechanisms through which sensory cues can fulfill the purposes of experiential marketing. On that account, we initially intended to explore whether cue congruence (semantic appropriateness of the cues in a combination) influences the relationship between the sensory cues and purchase intention. The influence of both congruent and non-congruent sensory stimuli combinations has been extensively studied in the area of sensory marketing (Mattila & Wirtz, 2001; Spangenberg, Grohmann, & Sprott, 2005). However, it is yet to be studied how store outcomes would be affected if a retailer exposed its customers to a combination of sensory cues that are not merely congruent, but also form an experiential set. Additionally, we posited that the effect of sensory cues on purchase intention would be dependent on mental simulation (the situation in which customers imagine themselves using or buying a product). The impact of applying this phenomenon has been tested within advertising (Escalas, 2004). However, there is limited evidence as to how mental simulation could be derived from sensory cues, and further affect purchase intention in a retail setting. Lastly, we assumed that the positive store outcomes that the store would achieve from exposing customers to sensory stimuli could be attributed to customers' surprise and delight with the offered experience. Thus, we assumed that the effect of sensory stimuli on purchase intention is transmitted through store likability, and would not manifest otherwise.

In the pursuit of exploring the underlying mechanisms through which sensory marketing impacts store outcomes, we suspected that brand familiarity would regulate the process through which sensory cues influence purchase intention. Although the influence of brand familiarity on store outcomes has been researched before (Ha & Perks, 2005; Laroche, Kim, & Zhou, 1996), it is yet to be

studied how brand familiarity regulates the effect of sensory cues on purchase intentions, and how it influences the mechanisms of this relationship.

Our research contributes to the general body of literature in experiential marketing by providing insights into the mechanisms through which brick-and-mortar retail stores can succeed in driving store outcomes via sensory marketing. We revealed whether and to what extent in-store experiences that employ sensory stimuli to simulate real-life consumption situations are superior in driving customers' purchase intention, compared to the application of sensory stimuli that merely create a pleasant store environment. Moreover, we unveiled the underlying mechanisms through which the influence of sensory stimuli manifests itself on purchase intention. A clear understanding of the impact of these mechanisms will aid managers to customize experiential retail strategies in accordance with a store's marketing objectives. Lastly, this paper determined whether brand familiarity could undermine the effectiveness of experiential marketing on purchase intention, namely whether improvements in the store environment will have the same effect on customers who are familiar with the brand, and those who are not.

2. LITERATURE REVIEW

This section is structured according to the elements of our conceptual model. Firstly, we introduced the general focus of our paper, the role of experiential marketing in driving store outcomes. We further presented how experiential marketing can be applied through the so-called experiential set and its elements (sound condition and store design). The experiential set, sound condition, and store design constituted the main independent variables of our study. Secondly, we explored three dimensions that might explain the mechanisms through which the experiential set impacts store outcomes (cue congruence, mental simulation, and store likability). Lastly, we explored brand familiarity, which is a marketing dimension suspected to condition the effect of cue congruence, mental simulation, and store likability on purchase intention.

2.1. Experiential marketing as a holistic approach

This subsection summarizes core theoretical aspects of experiential marketing and its application through an experiential set.

With the rapid expansion of new technologies and an a crowded marketplace, customers are becoming more demanding. As the economy evolves, customers are increasingly expecting to derive “fantasy, feelings, and fun” from shopping consumption (Tynan & McKechnie, 2009). Traditional marketing tools no longer offer a competitive advantage or even competitive parity. Therefore, companies are urged to step up their marketing game (Grundey, 2008) by delivering hedonistic value through experiential marketing in order to maintain profitability. This section further explores the benefits and practical applications of experiential marketing in a retail environment.

The idea of integrating the experiential aspect of shopping in the marketing field was first introduced by Holbrook and Hirschman (1982). Experiential marketing can be defined as the purchase of a company’s goods or services after engaging with them by experiencing activities and perceiving stimulations (Schmitt, 2000; Yuan & Wu, 2008). As the retail marketplace becomes increasingly crowded, companies employ experiential marketing to improve store outcomes by extracting the essence of the product and communicating it through physical, intangible, and interactive experiences.

Companies’ product offering increased throughout time from providing commodities to engaging customers via experiences (Pine & Gilmore, 1998). Therefore, the core mission of experiential marketing is to shift the focus from merely utilitarian features (instrumental and functional) to a combination of utilitarian and hedonic values (fun and playfulness). Thus, when companies try to sell something, they should offer engaging experiences that provide shopping pleasure. It has been shown that shopping enjoyment facilitates customers’ purchase decision-making process (Williams, 2006) because the enjoyment of a series of memorable events (Pine & Gilmore, 1999) translate into an increased

perception of the value of the product. Therefore, although utilitarian product features are essential, and companies should offer quality, they are mere hygiene factors (Kim & Sung, 2009). Companies should shift their attention and efforts to increase the perception of the value they offer by providing the experience add-on offering (Atwal & Williams, 2009; Berthon, Holbrook, & Hulbert, 2000).

The endeavor of implementing experiential marketing would benefit companies by achieving three core purposes. The first one is to serve as an *attention-creating medium* by standing out and persuading subjects to interact with the products. The second purpose is to serve as a *message-creating medium* by expressing the nature of the products and differentiating from competitors. The third and last purpose of experiential marketing is to support an *affect-creating medium*. This purpose aims to generate customer behavior and attitudes that contribute positively to the purchase likelihood (Kotler, 1974), the retention of existing customers, and the attraction of new ones (Yelkur, 2000). Otherwise said, through experiential marketing, a company gains people's attention to the product, successfully conveys the intended message, and hence increases purchase intention of recurring and new customers.

Achieving the purposes of experiential marketing might be challenging for JYSK since they are currently more product-centric than customer-centric. Worryingly for JYSK, despite the proven fact that customers' hedonic value has to be prioritized to stay competitive in today's economy, the brand is still focusing its efforts on showcasing utilitarian features of bedding items, such as the memory foam mattresses, product warranty, among others. If JYSK intends to increase store outcomes and keep itself competitive, we advise the brand to focus on designing shopping experiences that fulfill the experiential marketing purposes mentioned above. They could achieve an affect-creating medium by designing an in-store experience that triggers the '*koselig*' feeling of the Scandinavian lifestyle, as the identity of the company revolves around its Scandinavian identity. In this study, we aim to explore the effect of experiential marketing through the usage of an experiential set.

2.1.1. The Experiential Set - Practical Application of Experiential Marketing

An experiential set is a purpose- built/designed environment that gives life to the brand and delivers the intended experience. To successfully fulfill the purposes of experiential marketing, we consider critical for JYSK to create the right experience (Schmitt, 1999). One of the most efficient ways to deliver an attractive customer experience, particularly in the retail environment, is through the creation of an experiential set (Smilansky, 2009). Experiential sets are proven to attract customers' attention as they entice the target audience (Smilansky, 2009). It is crucial to keep in mind that creating these experiences does not necessarily require the use of new tools or technologies. Instead, companies can merely make better use of the existing tools when trying to improve the customers' experience through an experiential set (Hirschman & Holbrook, 1982).

There are two main stages in the process of designing and building an experiential set for a retail store. The first stage in creating a successful experiential set requires managers to consider several factors such as their target market, their brand identity, and the message they intend to convey. As expressed by one of the managers interviewed for Smilansky's book (2009) "If I do something at events or something at retail, but it is not integral to who I am, customers may enjoy the tactic, but they do not connect with my brand." This idea is reinforced by Schindler and Holbrook (1993), who provided a crucial consideration on how to create the experiences. They stated that the difference between an adequate and faulty use of environmental cues lies in relating to the consumer, instead of merely saturating their senses. The second stage in designing the experiential set aims at selecting the right combination of sensory cues. Within this, two factors need to be considered, the first one being the type of sensory cues that will be included in the experiential set. The second factor is ensuring that the experiential set elements are congruent both among each other and with the product or service that they target.

Although the experiential set was extensively applied empirically, there is limited documentation in academia in terms of how it should be built and what are the

mechanisms behind its effect on store outcomes. We have thus decided to test the effect of an experiential set in a retail environment by designing it in accordance with the store's concept. Specifically, our study focuses on testing an experiential set in the bedding department at JYSK. According to the first stage of creating an experiential set, if the set is applied to the bedding department, it would require to design it in a way that conveys the feeling of a cozy bedroom-like environment with Nordic features. The second stage of creating an experiential set requires to choose which sensory cues are going to be targeted to convey the meaning of the experiential set. After considering the five perception senses, we decided to target sight and sound through visual cues and auditory cues, respectively. The reasons for targeting these senses with their according stimuli are thoroughly explained in the following sections.

2.2. Visual Cues

This section explores how visual cues within an experiential set can impact purchase intention in a retail store.

Visual cues was one element that we decided to study as a component of an experiential set. This component was tested through multiple versions of store design. One of the most effective ways to improve store outcomes in retail is by manipulating the visual qualities of the store (Fiore, Yah, & Yoh, 2000). The visual design in retail stores focuses on the aesthetics of the physical characteristics of the store. Specifically, it evaluates the ergonomics, space distribution, colors, dimensions, light, and structure in stores (Vieira, 2010). Extensive research proved that the more customers enjoy the store's visual aesthetics, the more they are attracted to the products, and thus, the better the store outcomes for brands are. Therefore, we decided to test the influence of store design on store outcomes, as a component of an experiential set.

Customers' attraction to a store's products comes from the evaluation of its visual design. Brands can highly benefit from this as a superior visual design facilitates differentiation of the brand in a saturated marketplace (Bloch, 1995; Vieira, 2010), and it contributes to build and improve the store likability (Erdem, Oumlil,

& Tuncalp, 1999). As for the customers, they can enjoy the aesthetics of a store for its own sake, when the products are displayed in an appealing manner (Vieira, 2010). Hence, the visual design in a store contributes to the store's hedonic value, which leads to the overall enjoyment of the in-store experience. The more enjoyable the store experience is perceived to be, the more likely it is that customers will approach and interact with the products, as they will be more attracted to the product (Fiore et al., 2000). Hence, it is expected that customers' interaction with the products will increase their purchase intention, as confirmed by existing research (Hultén, 2012).

Although store experience enjoyment that is derived from the visual design of the store has been deemed to predict customer's purchase intention in a retail environment reliably, store design has never been studied as part of a sensory experiential set that simulates consumption, in combination with other sensory cues. Testing the effect of store design on store outcomes, as part of an experiential set in a JYSK store, would require to adapt the store design to the specific semantics of a department. In the bedding department, this can be achieved by installing dim lights, bedroom window curtains, and wooden flooring in order to resemble a real-life consumption situation. By creating a visually attractive environment, JYSK would increase the probability that the customers will be attracted to approach the bed department and interact with the products (i.e., lying down on the beds, lingering in the store department longer). As mentioned before, this is expected to translate into increased purchase intention.

2.3. Auditory Cues

This section explores how auditory cues within an experiential set can impact purchase intention in a retail store.

The second sensory cues that we decided to include in our study of an experiential set are auditory, expressed and tested through multiple sound conditions. Auditory cues have proven to influence store outcomes, namely purchase intention, in a positive way. Research shows that sounds impact customers' decision-making process when contemplating a potential purchase (Alpert & Alpert, 1990; Ii &

Bruner, 1990). Sound influences the emotions of customers, and emotions are known to play a significant role in shaping customers' attitudes and decisions. In practice, to shape customers' emotions for improving store outcomes, auditory cues can be used as various sound conditions (music) across many types of products. An important consideration is that for auditory cues to be effective, they have to be congruent with the semantics of the environment in which they are applied.

In a retail environment, one of the most often used types of auditory cues is music. A meta-analysis of more than 30 studies revealed that customers prefer background music to silence (Linsen, 1975), especially if it is liked (Garlin & Owen, 2006). This preference stems from the fact that in-store music influences customers' mood, which leads to sales uplifts. The positive effect of music on store outcomes is extensively acknowledged across many product categories. Moreover, this effect is proved to be stronger for product categories which manifest their benefits in time (Herrington, 1996). Namely, customers cannot acquire satisfaction or dissatisfaction with the products before actually using them. JYSK also sells products within this product category type, namely, home furnishings and household items. Hence, the store is challenged to provide proof for future satisfaction to direct the customers' decision-making process to their advantage. Aside from the experiential nature that a product may have, it is relevant to notice that the higher the risk that revolves around a purchase, the more positive impact music can have (Herrington, 1996). We can assume that products that require significant financial investment and are bought for long-term usage tend to be perceived as riskier to buy. JYSK sells furniture, a product category that requires high financial investments and is usually used over a long period. The degree of uncertainty and hence, the level of cognitive effort necessary to make the purchase decision is significantly high.

Extensive research suggests that the effect of musical stimuli on consumer perceptions is influenced by congruence between music and marketing intentions (Herrington, 1996; Kellaris & Mantel, 1996). A central consideration in sensorial marketing is then to ensure a musical fit with the store/brand values (Morrison & Beverland, 2003). Several studies prove the importance of congruence of music

with their environments. To illustrate this consideration, North et al. (1999) demonstrated that French wines sold better when paired with congruent music (i.e., French), rather than when paired with incongruent music (i.e., German). Thus, auditory cues should be congruent with the other cues applied in stores to ensure their effectiveness in triggering the targeted emotions and associations among customers.

The main reason why we chose to include auditory cues as a component of our experiential set is that JYSK's offering, particularly the products in the bedding department, can be perceived as a high-involvement, high-risk purchase. We posit that auditory cues applied through sound conditions would contribute positively to the purchasing decision-making process for JYSK's customers. When deciding on what type of sound conditions to use in the bedding department at JYSK, it was crucial to ensure a proper fit between the environment and the cues. We considered that the brand could easily align the sound conditions with the environment by releasing department-specific sounds in the form of soundscapes. We argue that using soundscapes such as waves and birdsongs would ensure a high congruence with the bedding department since soundscapes are semantically related to a proper rest and sleeping time. The more aligned the sensory cue is to the environment, the more customers will like and desire the products. Although extensive marketing research focuses on studying the effects of music on store outcomes, there is limited evidence of the effects of soundscapes. We have thus decided to study whether environment-specific sounds are more powerful in leading to purchase intention than music.

2.4. Cue Congruence

This section discusses the importance of cue congruence between store design (visual cues) and sound condition (auditory cues) in an experiential set, and its impact on purchase intention in a retail store.

When companies decide to improve store outcomes by applying sensory cues in a retail environment, they need to consider that these cues are going to be perceived by individuals holistically. Some researchers study the effects of sensory cues in

isolation from other senses. However, as stated by Stein and Meredith (1993), “Integrated sensory inputs produce far richer experiences than the ones that would be predicted from their simple coexistence or the linear sum of their individual products.” Thus managers are advised to apply sensory cues in a combination. Nonetheless, it is crucial for them to consider the number of senses that are targeted with the stimuli, and to make sure that the stimuli fit semantically. A suboptimal number of targeted senses or applied sensory cues that do not belong to the same theme as the store could backfire on the store outcomes.

In a retail store environment, cues are expected to be perceived and processed simultaneously (Chebat, Gelinias-Chebat, & Filiatrault, 1993). When artificially manipulating the sensory cues to study their effects, their combination leads to cross-modal sensory interaction (Piqueras-Fiszman & Spence, 2011). If the interaction is perceived as congruent, the effect of the sensory stimuli is more powerful. Cue congruence can be defined as a sense of “appropriateness” between two or more perceived sensory cues, or otherwise said, congruence means that cues semantically fit (Spangenberg et al., 2005).

The importance of congruence between sensory stimuli within experiential marketing has been confirmed by extensive research. Among studies that focus on sensory interaction, we can mention: arousing qualities of scent and music (Mattila & Wirtz, 2001); sound and vision in advertisement (Russell, 2002); improving store evaluation with congruence between auditory and olfactory cues in a Christmas context (Spangenberg et al., 2005); the valence of customer evaluation of matching versus mismatching combinations of masculine/feminine-perceived texture and smells (Krishna, Elder, & Caldara, 2010). On that account, it is expected that customers positively appraise a product or a service when they are exposed to environmental sensory cues that are congruent, both between each other and with the environment as a whole (Meyers-Levy & Tybout, 1989). Conversely, it is presumed that customers would provide negative or lower evaluations of a store’s products when they are exposed to non-congruent cues. Hence, it can be concluded that as long as multiple cues are semantically fit, they are perceived as congruent (Krishna et al., 2010), and

therefore the brand will be more positively evaluated. A better evaluation of the brand leads to an increased purchase intention (Spangenberg et al., 2005).

Cue quantity is a core consideration when deciding upon a combination of sensory cues. Homburg, Imschloss, and Kühnl (2012) argue that two is the optimal quantity of cues to be artificially manipulated in the creation of a combination. They posit that if the combination between them is perceived as congruent, the combination of two stimuli will lead to the most favorable outcomes. Conversely, they suggest that the application of three or more congruent stimuli would result in adverse effects.

Thus, as we intended to test how sensory cues reflect in-store outcomes, and studies prove that cue congruence makes or breaks the success of sensory marketing, we considered it relevant to explore this dimension in our research. Moreover, to the best of our knowledge, cue congruence between sound condition and store design has not been studied as a driver of purchase intention in the context of an experiential set. We decided to test this at JYSK by testing a congruent combination of cues. In light of the preceding literature, we would test two sensory cues: auditory cue (relaxing soundscape) and visual cue (cozy bedroom atmosphere), which semantically fit each other in the context of conveying “a good night’s sleep.”

2.5. Mental Simulation

This section discusses the importance of mental simulation resulting from the experiential set, and its impact on purchase intention.

Mental simulation is defined as an imitative mental representation of events (Taylor & Schneider, 1989), and it has been widely used in marketing research. A widely researched question in experiential marketing has been whether companies could make their customers’ desire to buy and own the products by making them imagine that they actually own the said products. Mental simulation can be achieved through sensory and experiential marketing.

The mechanisms behind mental simulation in a retail environment show that when customers perceive sensory information that triggers a need, they will either retrieve memories or mentally create future scenarios using or owning the product (Baker, Hutchinson, Moore, & Nedungadi, 1986). The cognitive activity required to imagine various usage scenarios is expected to result in cognitive pleasure. Cognitive pleasure derived from the multisensory and emotive facets of the shopping experience increases shopping enjoyment (Babin, Darden, & Griffin, 1994; Holbrook & Hirschman, 1982). Thus, it can be stated that pleasurable emotion is a “key linking” of the customer in-store experience (Jones, Reynolds, & Arnold, 2006). Research also proved that store visitors who had a pleasurable experience envisioning themselves using the products, were more likely to perform the purchase.

Based on previous research, we intend to explore the effect of mental simulation on purchase intention, in the context of an experiential set. Namely, we assumed that customers’ purchase intention could be increased by exposing them to sensory stimuli that trigger the need of resting. Thus, we investigated whether customers who imagined themselves using and owning the bedding products as a result of a perceived need for resting, would register a higher desire to own and buy bedding products.

2.6. Store Likability

This section explores how an experiential set increases store likability and impacts purchase intention in a retail store.

Consumers have a wide selection of retail stores to shop from when deciding where to spend their money. Therefore, companies are urged to use the best of their resources to attract customers. One of the most employed attraction factors is store likability. Store likability is believed to be a reliable predictor of purchase intention. Since we are testing sensory marketing in retail, we decided to include this variable in our model.

Store likability can be defined as the feelings acquired by customers towards the store environment (Mowen, 2001). Literature supports that store likability and

general sentiment toward the brand are significant predictors of purchase intention and shopping behavior (Lassar, Mittal, & Sharma, 1995). Conversely, it is accepted that store unlikability can be nocive for the brand and the overall performance. If the store is disliked, customers might be reluctant to purchase from the brand (Cialdini, 2001). Customers' reluctance to buy can result in negative word of mouth, overall customer dissatisfaction, and ultimately, loss of valuable customers (Reinhard & Messner, 2009). Therefore, in order to ensure a company's long term survival, managers are called to invest in improving the store likability.

Traditionally, marketers use a vast number of cues to enhance the store likability and hence improve store results. Among some of these cues, we can mention atmospheric elements such as product layout, lighting, sounds, and smells. In this particular study, we intend to manipulate store design and sound condition. We argue that by choosing a pleasant combination of store design and sound condition, customers' perceived store likability with increase. Consequently, we expect to see a direct influence store likability on customer's purchase intentions.

2.7. Brand Familiarity

This section discusses how brand familiarity may alter the effect of an experiential set has on purchase intention.

Brand familiarity refers to the direct and indirect experiences accrued by customers with a particular brand (Alba & Hutchinson, 1987). Previous research on retail has confirmed that familiarity has a positive influence on purchase behavior (Laroche et al., 1996; Park & Stoel, 2005). As explained by Baker et al. (1986), familiarity increases perceptual identification of the brand and enhances the possibility of inclusion into customers' consideration set, when contemplating a purchase.

When considering to buy an item in a store, visitors undergo a multitude of cognitive decision-making processes. They make decisions based on both internal and external sources of information. Insufficient brand-related information

coming from an internal source (not knowing the brand) might not support the purchase decision and even exclude the brand from the consideration set of a customer (Dursun, Kabadayı, Alan, & Sezen, 2011). As one of the most important internal sources of information is brand familiarity (Alba & Hutchinson, 1987), it can be affirmed that the more familiar store visitors are with the store, the more likely they are to buy.

Also, brand familiarity regulates the magnitude of perceived risk. Researchers have suggested that familiarity increases overall confidence that the brand offers an admissible quality level and it decreases the perceived danger of selecting a brand (Bettman, 1974; Park & Stoel, 2005; Stanforth, Lennon, & Moore, 2000), since they know what to expect from it (Dick, Jain, & Richardson, 1996). For example, Biswas and Blair (1991) found that price advertisement for familiar brands lessens the influence on internal reference price, thus making external stimuli less effective. Therefore, customers with a higher degree of familiarity rely mainly on their internal judgment instead of relying on external cues (store design, store music, packaging, price levels), when considering a purchase.

Thereby, we suspect that customers' familiarity with the brand might diminish the effect of a retailer's attempt to influence sales via external stimuli. This phenomenon means that the consequence supported by the brand for presenting customers with an inferior version of sound and store design will most likely be less damaging to the brand if the customers are familiar with the brand, than if they would not be. In the same lines, the benefits reaped by the brand for presenting customers with a superior version of sound and store design will be less rewarding if customers are familiar with the brand, than if they would not be.

In the case of JYSK, we assume that the attempt to increase customers' purchase intention by displaying improved versions of sensory stimuli (store design and sound conditions) will have a weaker power in the case of customers who are familiar with the brand. Conversely, it is expected that customers who are not familiar with the brand would be more susceptible to the influence of the external cues, and thus, if influenced by the cues, they will be more willing to buy.

3. RESEARCH METHODOLOGY

This section describes the study design and methodology, and it illustrates the testing procedure of the hypotheses. The hypotheses were tested using data generated from the same study.

3.1. Study Background

Through our study, we aimed to analyze how a combination of different versions of sound condition and store design would reflect into customers purchase intention of bedding items. We also intend to study how, and to what extent, various levels of perceived cue congruence, mental simulation, store likability, and brand familiarity would influence this relationship.

As mentioned before, the retailer suspected that an improvement of the in-store experience via the creation of a more experiential setting would stimulate purchase intention. Before designing and launching a project in real life, JYSK wanted to test which sensory stimuli within an experiential set would have the most significant impact in driving purchase intention. Thus, they decided to test a few versions of sound condition and store design within two store outlets in Oslo.

In terms of store design, we tested two distinctive versions in their stores. In some store outlets of the chain, the products were displayed in a manner that rather maximizes the space utility instead of creating a nice store ambiance. These outlets had fluorescent illumination and carpeted floors. We further address this version of the store design as the “old design.” In other stores, the design drifts from the warehouse-style to a conceptual setup. The products were displayed in a manner that simulated product usage situations (dining area setups, decorations on top of tables, outside patio arrangements). The bedding area, which was our main focus, featured wooden floors and dim lights (resembling a cozy bedroom). We further address this version of the design as the “new design.” We expected this version to perform better in driving store outcomes than “old design.” The management of the company suggested one location for each type of design:

JYSK Grini as a representant of the old design, and JYSK Holmen - of the new design.

In the case of sound condition, we decided to test three distinctive versions across the two previously mentioned stores. It is worth mentioning that before the study, neither of these stores had a sound system installed; hence no music was played. Our study includes testing the influence of sound condition. Hence, the first version of sound condition represents the absence of in-store music (status quo). The only sounds that were perceived were natural sounds one can hear in the store (people talking, floors creakings). This version is further referred to as “no music.” The second version of sound condition represents the presence of music, and it features generic store music played across the whole store. The music selected did not resemble any “hits” and did not contain any vocals in order to prevent customers’ in-store experience from being influenced by their personal musical preference. This version of sound condition is further addressed as “music.” We expected this version to perform better than “no music.” Lastly, we tested a combination of music and a relaxing soundscape. The music used was the same as in the second version of sound condition, whereas the soundscape featured a combination of meditation sounds, birdsongs, and ocean waves. The music was played across the entire store, and it switched to soundscape only in the bedding area. This version is further addressed as “sound zoning.” We expected this version to perform better in driving store outcomes than “no music” and “music.”

Any combination between a version of a sound condition and a version of a store design is defined as an “experiential set.” The experiential set is evaluated in the study as an interaction between its two components.

3.2. Conceptual Framework and Hypotheses

The conceptual model depicts the relationships that we expected to observe among the study’s independent variables (sound condition, store design, experiential set), dependent variables (purchase intention), mediating variables

(cue congruence, mental simulation, store likability) and moderating variables (brand familiarity).

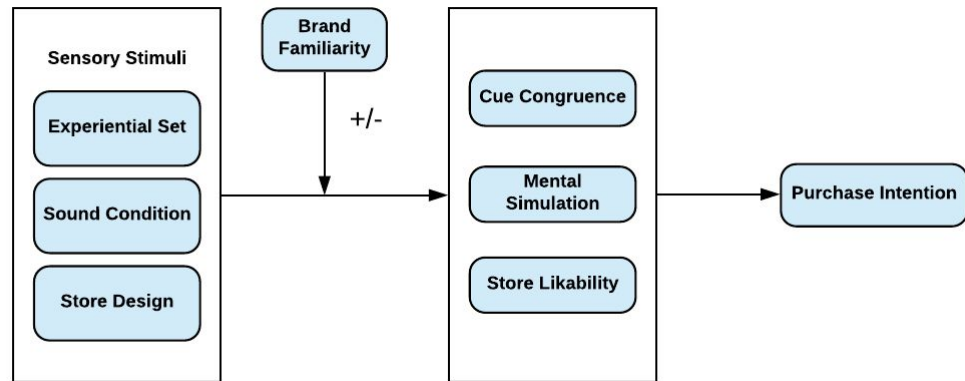


Figure 1. Conceptual framework of the study.

We further explain the dynamics among the study variables and hypothesize the expected observations. The mechanisms of these dynamics are thoroughly explained and analyzed in the data analysis section.

Within our study, we expected participants to perceive some versions of the sensory cues in a more positive way than others. We believed that from all the proposed versions of sound condition, sound-zoning will be perceived better than music, and respectively, better than no music (status quo). In terms of store design, we believed that the new version of the store design is expected to be perceived as better than the old version of store design. In the same lines, we assumed that the better the cues are perceived, the more influential the cues would be in leading to store results, and thus they would be deemed as superior. Thereby, we estimated that sound-zoning and new store design were superior among other versions of cues in driving high levels of cue congruence, mental simulation, and store likability, as these versions will be perceived best among participants. Consequently, we argued that the higher the levels of cue congruence, mental simulation, and store likability would be, the more participants would desire to own the products, and thus, their purchase intention would be higher. To summarize, it can be presumed that the better the stimuli were perceived, the better the store outcome would be.

H1. Respondents who were exposed to sound-zoning would report higher levels of perceived cue congruence, mental simulation, store likability, and hence, a higher level of purchase intention, compared to respondents who were exposed to music and no sound.

H2. Respondents who were exposed to the new design would report higher levels of perceived cue congruence, mental simulation, store likability, and hence, a higher level of purchase intention, compared to respondents who were exposed to the old design.

We further explored whether an interaction between sound condition and store design would yield different levels of cue congruence, mental simulation, store likability, and purchase intention compared to the sum of the individual stimuli. Precisely, we expected that the interaction of sound-zoning and new store design would have a higher positive effect on purchase intention in contrast to the sum of the effects of these stimuli taken separately.

H3. Sound condition and store design interact in such a way that the synergic effect of superior stimuli on purchase intention is estimated to be higher than the aggregated effects of these stimuli taken separately.

As mentioned above, we ascertained that the versions of sound condition or store design that would lead to the highest level of cue congruence, mental simulation, store likability, and purchase intention, would be considered superior. Building on this claim, we supported that a combination of superior versions of sound condition and store design would result in a superior experiential set (interaction between sound condition and store design). Accordingly, we expected the superior experiential set to lead to higher levels of perceived cue congruence, mental simulation, store likability, and purchase intention, compared to inferior experiential sets.

H4. Respondents who were exposed to a superior experiential set would report higher levels of perceived cue congruence, mental simulation, store

likability, and hence, a higher level of purchase intention, compared to respondents who were exposed to inferior versions of an experiential set.

We further explored how the moderating effect of brand familiarity regulated the direct and indirect relationship between sensory cues and purchase intention. The positive and negative effects of sensory cues on purchase intention were expected to be milder for customers that were familiar with the brand. Conversely, the positive and negative effects of sensory cues on purchase intention were expected to be more accentuated for customers that were not familiar with the brand. We assumed these mechanisms to be viable for both the types of sensory cues taken separately and together.

H5. Respondents who were not familiar with the brand were expected to report higher levels of cue congruence, mental simulation, store likability, and hence, a higher level of purchase intention when exposed to the *superior sound condition*, compared to respondents who were familiar with the brand.

H6. Respondents who were not familiar with the brand were expected to report higher levels of cue congruence, mental simulation, store likability, and hence, a higher level of purchase intention when exposed to the *superior store condition*, compared to respondents who were familiar with the brand.

H7. Respondents who were not familiar with the brand were expected to report higher levels of cue congruence, mental simulation, store likability, and hence, a higher level of purchase intention when exposed to the *superior experiential set*, compared to respondents who were familiar with the brand.

3.3 Experimental Design

We tested three versions of sound conditions across two versions of store design. Since we have a 3x2 experimental design, it was required to test six total conditions (permutations of cues). To test these conditions, we created video recordings following a typical customer path inside two JYSK stores. As previously applied by Sayin et al. (2015) in a study, we filmed the video versions on the customer's perspective in order to create an environment where study participants were able to imagine themselves in the stores. Each version of the video featured one of the six treatments, as follows:

Experimental Conditions	Store Design	Sound Condition
1	Old Design	No Music
2	Old Design	Music
3	Old Design	Sound-Zoning
4	New Design	No Music
5	New Design	Music
6	New Design	Sound-Zoning

Table 1. Experimental conditions of the study.

The videos were recorded on the same day, with the same tools, only one hour apart. They were taken on a single shot, and only minor editing was done in order to stabilize the image. The natural sound of the stores was recorded using binaural Soundman OKM in-ear microphones. We used a sound-editing software to add the sound conditions to the natural sounds of the store and then added the sound combinations to the videos, according to the conditions mentioned earlier. Thus, we had six versions of the video for every experimental condition. The videos had the same length (2 minutes and 14 seconds) to ensure internal validity. The experiment was conducted via an online survey in Qualtrics, which can be found in Appendix 1. We included all the six versions of the video in the survey; however, the survey only presented one version to the respondents. The videos

featuring different conditions were randomly distributed to an equal number of participants in order to avoid both over- and under representation.

3.3.1. Survey Design

At the beginning of the survey, the participants were asked to follow specific *instructions*. First, they were asked to use headphones instead of speakers, as it was necessary for them to perceive the position of the sound in order to ensure that the experience felt real. Second, the respondents were asked to complete the survey in a quiet environment. As it was essential to prevent the participants from getting distracted and ensure that they could accurately perceive the sounds that they were exposed to, they were asked to fill out the survey with no other sounds playing in the background.

These requirements led to the first *quality test*. After the survey was introduced, participants faced a sound control question (a sound captcha test). The test ensured both that the participants were using a sound device, ideally headphones as recommended, and that the sound volume at their computers was set at a comfortable level. The respondents were allowed to listen to the sound captcha multiple times, but they were not allowed to proceed with the study unless they answered correctly the verification question that was attached to it. If the respondents passed the sound captcha, they were presented with one of the six versions of the *video*.

After watching the video, respondents were asked questions that explored two dimensions. The first group of questions was meant to provide an understanding of *participants' attitudes towards several aspects of the virtual in-store experience*. The second group of questions was designed to reveal the valence of several aspects that would factor in *participants' purchase decision-making process*. Thus, we first explored the valence of respondents' attitudes towards the store and its products while being exposed to the bedding area. We also assessed their overall perception of the virtual in-store experience. To explore participants' attitudes, we asked them to rate 22 statements that measured dimensions such as

cue congruence, mental simulation, and store likability, on a 7 point Likert scale, ranging from “strongly disagree” to “strongly agree.” The statements were inspired by the Marketing Scales Handbook and adjusted the conditions and variables of our experiment (Bruner, 2012). Among the statements, we inserted an additional attention control question to facilitate the identification of respondents who arbitrarily selected answers. The second group of questions inquired about participants’ level of willingness to buy bedding items from the store that they were presented with, and about their price perception regarding the store’s products.

We decided to conceal the real purpose of the study to avoid participant bias. Thus, we employed the *red herring methodological technique*. This technique was applied by inserting several questions testing in the questionnaire, and informing participants that the purpose of the study was to measure product recall in a retail setting (Laney et al., 2008). The questions that tested product recall were adapted from a study by Lynch & Srull (1982). Respondents were shown pictures of large objects such as tables and sofas and were asked to select the ones that they thought they had seen in the store shown in the video.

The last stage of the survey inquired about respondents’ familiarity with the brand, along with several demographic indicators.

3.3.2. Sampling

The responses of the survey were obtained by sharing it on social media, emailing and asking family members, friends, and acquaintances to complete the survey and redistribute it to their network. Hence we used convenience sampling.

To decide upon sample size, we had to make sure that the sample would provide enough statistical power. Thus, the amount of data that we would derive from our sample should have been large enough to detect effects among our study variables, if there would be any. Thus, deciding upon an appropriate sample size would ensure that we did not commit a Type II error within our study. To

determine the exact sample size that was necessary, we used two methods. First, we calculated the sample size through a software application called G*Power. The result was calculated based on several parameters, such as the statistical test type, statistical power, error probability levels, and effect size. The second method for determining the necessary sample size employed consulting the sampling size rule of thumb, which states that a study should have no less than 50 respondents per condition (Van Voorhis & Morgan, 2007). Since we had six conditions, our research asked for 300 respondents. Eventually, we decided to apply the sample size suggested by the rule of thumb and aimed to have at least 300 participants to get enough data to be able to detect effects, and thus, provide reasonable insights.

3.3.3. Study Compliance

As far as we are concerned, our research is GDPR compliant. The study was also conducted following the legal and ethical guidelines regulating research, as proposed by the Norwegian Centre for Research Data. The survey within our study neither required, nor collected any personal data that would permit us to identify the respondents of the survey (i.e., IP addresses, name, code, contact details, or any other sensitive data).

3.4. Study Variables

3.4.1. Dependent Variables (DV)

As we intended to evaluate the effect of sensory stimuli on purchase intention, we treated *purchase intention* as the primary dependent variable throughout all the analyses. Purchase intention was an interval-scaled variable, the value of which was obtained by aggregating the data from two seven-point Likert-scaled items within our survey. The items used in the survey were adapted from pre-existing questions documented in the Marketing Scales handbook (Bruner, 2012). The items revealed how likely respondents were to buy a bedding item from the store, and whether they would include the brand in their consideration set when they would need to buy a bedding item. To ensure internal consistency reliability, we ran the Cronbach's Alpha test on the items pertaining to this variable, which

resulted in a value higher than .80 ($\alpha = .847$). This value confirmed that it was reasonable to analyze the independent variable (purchase intention) by aggregating the data obtained from our proposed items. On average, respondents' purchase intention was 4.117 ($SD = 1.366$) on a seven-point Likert scale.

3.4.2. Independent Variables (IV)

We intended to test whether different versions of *sound conditions*, *store design*, and *the experiential set* (interaction between sound condition and store design) would result in different levels of purchase intention among study participants. Thus, these variables were treated as core independent variables of our study. All the independent variables had nominal values that stand for one of the three versions of auditory cues, two of the versions of store design, and six versions of the experiential set.

3.4.3. Mediating Variables (Mi)

We set cue congruence, mental simulation, and store likability as mediating variables in our analysis. In order to assess how respondents perceived these variables, we designed questions based on the documentation in the Marketing Scales handbook (Bruner, 2012) that resulted in 22 statements. Participants, hence, rated these statements on a seven-point Likert scale, ranging from "strongly disagree" to "strongly agree." After gathering the data, we proceeded to aggregate the statements pertaining to each of the three variables mentioned above. To ensure internal consistency reliability for the items in each group, we ran the Cronbach's Alpha test on these variables. The cue congruence variable consisted of 6 items ($\alpha = .944$) with an average of 4.053 ($SD = 1.493$). The store likability scale consisted of 6 items ($\alpha = .849$) with an average of 4.45 ($SD = 1.132$). The mental simulation scale consisted of 8 items ($\alpha = .885$) with an average of 3.754 ($SD = 1.241$). The Alpha values were higher than .80, which proved that it was reasonable to analyze the mediating variables by aggregating the data obtained from our proposed items.

3.4.4. Moderating Variable (W)

In the second part of our analysis, we included brand familiarity as a moderator to our model. Respondents' brand familiarity was assessed by collecting answers from a survey question that straightforwardly inquired whether they were familiar with the brand or not. Hence, this variable was coded as a binary categorical-scaled variable. Of all the participants, 168 were familiar with the brand, and 148 were not.

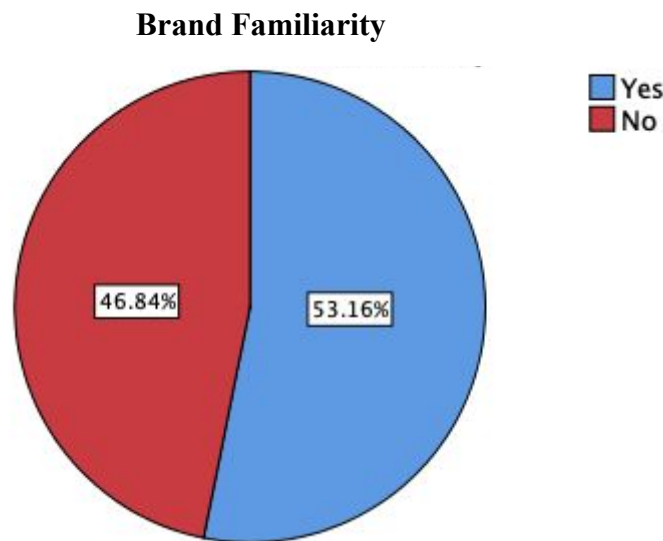


Figure 2. Visual representation of participants' brand familiarity.

4. DATA ANALYSIS

This section describes the procedure and reasoning behind data cleaning, and it reports demographic information of the survey's participants.

4.1. Data Cleaning

In the first stage of analyzing the data, we ran several descriptive analyses to get an overview of the data obtained. We noticed that some data entries raised red flags, and they could not be further used for analysis since the responses were either unreasonable or missing. Thus, we proceeded to clean the data by excluding data entries based on the following two criteria: those of participants who did not

pass at least one of the two *attention check questions*, and those of participants who completed the survey in an *unreasonable timespan* (both for too short and for too long). When estimating what timespan would be too short or too long of a time to spend on completing the survey, we aimed to avoid discarding cases arbitrarily. Thus, we decided to exclude cases that lay outside the mean of the total results, plus or minus two standard deviations. Due to a very high range of results (people taking a few seconds to several hours to complete the survey), it would have been unreasonable to apply this criterion since using the derived mean, and the standard deviation would have given absurd results ($M = 3,158.147$, $SD = 24,079.052$). Thus, we decided to settle on a benchmark for a ‘reasonable’ timespan to fill out the survey and filtered out respondents who either took less than four minutes or more than one hour to complete the survey.

After applying the attention check (first) filter, we ran a cross-tabulation and a One-Way ANOVA to check whether the cleaning filters applied above could have removed more data entries obtained from a specific treatment, than from others, or whether those cases randomly spread across conditions. The cross-tabulation with Chi-squared revealed that there is no relationship between the treatment and the first filter ($\chi^2(5, N = 367) = 6.005, p = .306$). Besides, there was no statistically significant difference in the number of responses per condition, as determined by one-way ANOVA ($F(5,361) = 1.201, p = .308$). Hence we can say that we failed to reject the ANOVA hypothesis stating that all means are equal. After applying the first filter, 29 participants were excluded from further analyses, reducing the sample from 367 to 339.

We carried out the same procedure for the timespan (second) filter. The cross-tabulation with Chi-squared revealed that there is no relationship between the treatment and the filter applied ($\chi^2(5, N = 339) = 9.086, p = .106$). Also, there was no statistically significant difference between the number of responses per condition as determined by one-way ANOVA ($F(5,333) = 1.834, p = .106$). Hence we can say that we failed to reject the ANOVA hypothesis stating that all means are equal. Thus, after filtering out data entries from respondents who took less than four minutes or more than an hour to complete the survey, the sample used in further analyses was reduced by another 22 responses, from 339 to 317.

Although a few more data cleaning filters were tested to check whether the results of the analyses would change (filtering out odd answers' participants), the results of the tests followed the same trend as above. Our survey was filled out entirely by 367 respondents. After cleaning the data, we proceeded to conduct the rest of the analysis with a sample of 317 participants.

4.2. Sample Demographics

Our sample was represented by 68.14% female and 31.86% male participants from a total of 40 countries of residence. Having answers provided by respondents from a considerable number of countries all over the world ensured external validity. Most of the participants reside in Norway (46.69%), Taiwan (11.04%), Paraguay (9.78%), and the Republic of Moldova (6.62%). The respondents were between 16 and 48 years old, with the most prominent groups pertaining to the 18-24 (38.92%) and 25-34 (58.23%) age ranges. The majority of respondents (70.35%) stated that they had more than 50% of participation in the decision-making process when considering a household product purchase. Thus, we concluded that most of the study participants had a significant influence on their households decision to buy furniture and household items.

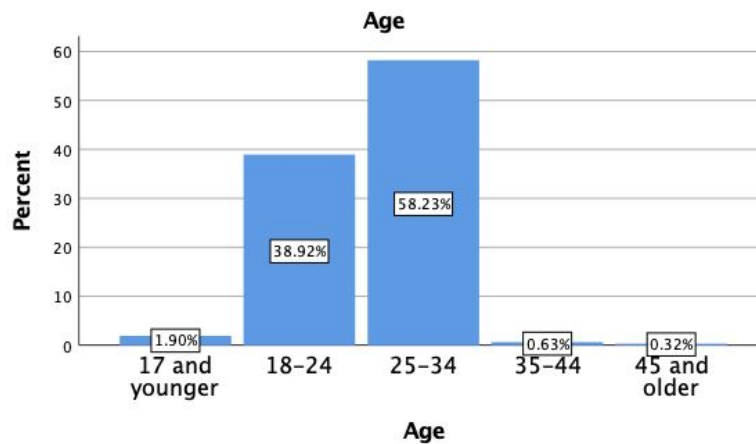


Figure 3. Age distribution among respondents.



Figure 4. Shopping participation among respondents.

4.3. The Effect of the Independent Variables on the Mediators

4.3.1. Procedure

Three two-way analyses of variance (ANOVA) were conducted to observe if the sensory cues (store design, sound condition) and the interaction between them, influenced participants' evaluation of cue congruence, mental simulation, and store likability. Store design was tested across two levels (old design, new design), sound condition was tested across three levels (none, music, sound-zoning), and the interaction between the cues was tested across six conditions (permutations of sound condition and store design). The results from the two-way ANOVAs showed that sound condition was consistently statistically significant at the .05 significance level (95% confidence), whereas store design and the interaction between store design and sound condition (the experiential set) were not significant across all three tested mediators.

4.3.2. Results

First, we analyzed the differences in means for the mediating variable cue congruence (Table 2). The main effect of the store yielded an F ratio of $F(1,311) = 5.487, p = .02$, indicating a significant difference between both versions of store design ($M = 3.86, SD = 1.60$) vs. ($M = 4.25, SD = 1.36$). The main effect of sound condition yielded an F ratio of $F(2, 311) = 55.134, p < .01$.

A Tukey HSD Post-Hoc test confirms that there is a significant difference between sound-zoning and no music ($p < .01$), as well as between music and no music ($p < .01$). However, the difference between music and sound-zoning is not significant ($p = .08$). Moreover, the interaction effect between the experiential set elements yielded an F ratio of $F(2, 311) = .960$, $p = .587$, deeming it not significant.

Tests of Between-Subjects Effects

Dependent Variable: Cue Congruence

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	195.045	5	39.009	23.836	.000
Intercept	5171.096	1	5171.096	3159.754	.000
Store Design	8.980	1	8.980	5.487	.020
Sound Condition	180.460	2	90.230	55.134	.000
Experiential Set (Store Design * Sound Condition)	1.920	2	.960	.587	.557
Error	508.967	311	1.637		
Total	5910.222	317			
Corrected Total	704.013	316			

R Squared = .277 (Adjusted R Squared = .265)

Table 2. Test of within-subjects effects and between-subjects effects of store design, sound condition, and the experiential set on cue congruence.

Second, we explored the influence of the experiential set elements on the mediator, mental simulation (Table 3). The main effect of sound condition yielded an F ratio of $F(2, 311) = 9.648$, $p < .001$, which proved significant. Second, the main effect of the store design yielded an F ratio of $F(1, 311) = 3.650$, $p = .057$, which proved not significant. Third, the interaction effect between store design and sound condition yielded an F ratio of $F(2, 311) = .368$, $p = .692$, indicating that this effect was not significant either. In order to understand which differences

in the effects of sound conditions are significant, we explored Post-Hoc comparisons using the Tukey HSD test. The test showed that the mean score for sound-zoning ($M = 4.18$, $SD = 1.19$) was significantly different from the score registered by no music ($M = 3.38$, $SD = 1.22$) ($p < .01$). However, the music condition ($M = 3.75$, $SD = 1.22$) did not significantly differ from no music or sound-zoning ($p = .065$).

Tests of Between-Subjects Effects

Dependent Variable: Mental Simulation

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	35.316	5	7.063	4.864	.000
Intercept	4449.463	1	4449.463	3064.084	.000
Store Design	5.301	1	5.301	3.650	.057
Sound Condition	28.021	2	14.011	9.648	.000
Experiential Set (Store Design * Sound Condition)	1.070	2	.535	.368	.692
Error	451.614	311	1.452		
Total	4954.122	317			
Corrected Total	486.930	316			

R Squared = .073 (Adjusted R Squared = .058)

Table 3. Test of within-subjects effects and between-subjects effects of store design, sound condition, and the experiential set on mental simulation.

Last, we explored the influence of the experiential set elements on the third mediator, store likability (Table 4). Store design and the interaction between store design and sound condition, on the other hand, were not significant. The main effect of store design yielded an F ratio of $F(1, 311) = 7.101$, $p = .008$, indicating a significant difference between old design ($M = 4.27$, $SD = 1.13$) and new design ($M = 4.62$, $SD = 1.11$). The main effect of sound condition yielded an F ratio of $F(2, 311) = 13.985$, $p < .001$. The interaction effect between the set

elements, on the other hand, yielded an F ratio of $F(2, 311) = .587$, $p = .557$, deeming it not significant. A Tukey HSD Post-Hoc test confirms that there was a significant difference between all the versions of sound condition in this case ($p < .01$).

Tests of Between-Subjects Effects

Dependent Variable: Store Likability

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	43.140	5	8.628	7.413	.000
Intercept	6251.130	1	6251.130	5371.153	.000
Store Design	8.265	1	8.265	7.101	.008
Sound Condition	32.552	2	16.276	13.985	.000
Experiential Set (Store Design * Sound Condition)	1.366	2	.683	.587	.557
Error	361.952	311	1.164		
Total	6679.667	317			
Corrected Total	405.092	316			

R Squared = .106 (Adjusted R Squared = .092)

Table 4. Test of within-subjects effects and between-subjects effects of store design, sound condition, and the experiential set on store likability.

4.4. The effect of Sensory Cues on Purchase Intention

4.4.1. Procedure

In order to study the effect of the independent variables on purchase intention, we conducted a two-way ANOVA. This analysis allowed to test whether sound condition, store design, and the experiential set affected purchase intention. Hence, we expected the means of the independent variables to be statistically significant across versions.

4.4.2. Results

Before performing an ANOVA, we assessed the homogeneity of variances of purchase intention by using Levene's test for equality of variances ($p > .05$), which seemed to be the case. We also observed that the assumption of normality for purchase intention holds, as assessed by visual inspection of Normal Q-Q Plots. Hence, we proceeded with performing the ANOVA.

According to the ANOVA output (Table 5), the main effect of sound condition on purchase intention proved to be strongly significant, as it yielded an F ratio of $F(2, 311) = 3.470$, $p = .032$. The effect of store design and the experiential set yielded an F ratio of $F(1, 311) = 1.560$, $p = .213$, and $F(2, 311) = .372$, $p = .690$ respectively, and are thus, not significant. Post-Hoc comparisons using the Tukey HSD test showed that the mean score for sound-zoning ($M = 4.27$, $SD = 1.33$) was significantly different from the one for no music ($M = 3.82$, $SD = 1.39$) ($p = .045$). The music condition ($M = 4.24$, $SD = 1.34$) however, did not differ significantly from the no music and sound-zoning versions.

Tests of Between-Subjects Effects

Dependent Variable: Purchase Intention

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	17.235	5	3.447	1.873	.099
Intercept	5358.969	1	5358.969	2911.431	.000
Store Design	2.872	1	2.872	1.560	.213
Sound Condition	12.775	2	6.388	3.470	.032
Experiential Set (Store Design * Sound Condition)	1.369	2	.684	.372	.690
Error	572.447	311	1.841		
Total	5962.000	317			
Corrected Total	589.681	316			

R Squared = .029 (Adjusted R Squared = .014)

Table 5. Test of within-subjects effects and between-subjects effects of store design, sound condition, and the experiential set on purchase intention.

Based on the previous analyses describing the influence of the independent variables on the dependent variable, we observed that neither store design, nor the experiential set proved to have a significant effect. The opposite was confirmed for sound condition, and therefore, it seemed reasonable to proceed with subsequent analyses by studying only sound condition as an independent variable.

4.5. The Mediating Effect between Sound Condition and Purchase Intention

Previous analyses proved that participants' level of purchase intention is strongly dependent on the version of sound condition that they were exposed to. We further intended to evaluate whether this relationship was mediated by cue congruence, mental simulation, and store likability.

4.5.1. Procedure

The conceptual framework of our study (*Figure 1*) features multiple parallel mediating relationships (Hayes, 2013). We investigated the mediating mechanisms of these relationships by conducting an analysis in Process (an extension for SPSS). We employed the 4th statistical model in the extension, as this model tested the relationships between the variables in accordance with our conceptual framework. In the analysis, the independent variable was represented by sound condition, a nominal variable with three versions. The mediating variables (M_i) were represented by cue congruence (M1), mental simulation (M2), and store likability (M3), as interval-scaled variables. The dependent variable (Y) was represented by purchase intention as an interval-scaled variable.

To prove that the relationship between sound condition and purchase intention was mediated by cue congruence, mental simulation, and store likability, it was required to fulfill four conditions.

The first condition that needed to be fulfilled implied that *sound condition (X) significantly predicts purchase intention (Y)*. This relationship is shown by the total effect of X (Sound Condition) on Y (Purchase intention). The total effect of

X on Y is the sum of the direct effect of X on Y and the indirect effects of X on Y through M_i (cue congruence, mental simulation, and store likability).

The second condition that needed to be fulfilled to prove the mediation relationships in the model implied that *sound condition (X) should significantly predict the mediators M_i (cue congruence, mental simulation, and store likability)*. To test this condition, the mediators were treated as dependent variables.

The third condition required to be fulfilled to prove a mediation dynamic in the model stated that *the effect of sound condition (X) on purchase intention (Y) is significant only when accounting for the effect of each of the mediators (M_i)*. This relationship is shown by the indirect effects of X (sound condition) on Y (purchase intention) through M_i (cue congruence, mental simulation, and store likability). These effects were tested for every mediator individually while holding the other ones constant. The indirect effects would prove that the influence of sound condition on purchase intention is transmitted through the mediating variables only, and would not be manifested otherwise.

The fourth and last condition required to prove mediation stated that *when the effect of the mediators M_i (cue congruence, mental simulation, and store likability) is factored out of the relationship between sound condition (X) and purchase intention (Y), the effect of sound condition on purchase intention declines and becomes nonsignificant*. This dynamic was shown by the *direct effect of X on Y*.

To assess the significance of the relationships between the variables mentioned above, we applied two criteria while analyzing the results. We assessed the p-values and the Bootstrap Confidence Intervals of the effects between the variables. The criteria implied that for an effect of one variable on another to be significant, p-values should indicate a value lower than .05 and zero should be outside of the lower limit (LLCI) and the upper limit (ULCI) of a 95 % Bootstrap confidence interval (as seen under the heading “95% Bias-Corrected Bootstrap CI” in Table 6,7, & 8)

4.5.2. Results

The total effect of sound condition(X) on purchase intention(Y) proved to be statistically significant, as confirmed by the p-value ($p = .0178$), and a 95% bootstrap confidence interval that does not straddle 0 (.0386 to .4052). These values indicate that overall, sound condition significantly predicts purchase intention. The size of the total effect of sound condition on purchase intention was $c = .2219$, which means that overall, respondents exposed to different versions of sound condition recorded .2219 difference in their purchase intention level.

Effect size	<i>se</i>	<i>p</i>	95% Bias-Corrected Bootstrap CI
.2219	.0931	.0178	.0386 to .4052

Table 6. Inference of the total effect of sound condition on purchase intention through cue congruence, mental simulation, and store likability.

Next, to assess whether sound condition was a reliable predictor of kickstarting the mediators, each mediator was tested separately while holding the other mediators constant. According to the results from Process, *sound condition*(X) proved to significantly predict all of the three mediators(M_i) of our study. Firstly, cue congruence yielded an F ratio of $F(1, 315) = 97.033, p < .001$ and an $R^2 = .236$. Secondly, mental simulation yielded an F ratio of $F(1, 315) = 19.956, p < .001$ and an $R^2 = .06$. Lastly, store likability yielded an F ratio of $F(1, 315) = 27.626, p < .001$ and an $R^2 = .081$.

When analyzing the indirect effects of sound condition (X) on purchase intention(Y) through perceived cue congruence, mental simulation and store likability (M_i), the indirect effect proved to be significant only through mental simulation and store likability, but not through cue congruence, as explained below.

The first mediator of our model, *cue congruence*, did not prove to influence purchase intention significantly (Table 7), as revealed by a bootstrap confidence interval that crosses 0 (-.0443 to .1791). This interval indicates that cue

congruence does not significantly mediate the effect of auditory cues on purchase intention. Additionally, the size of this indirect effect is $c' = .0626$, which means that respondents who were exposed to different types of sound conditions are estimated to differ by only .0626 units in their reported intentions to purchase.

The second mediator of our model, *mental simulation*, registered an indirect effect that is statistically significant (Table 7), as revealed by a bootstrap confidence interval that does not cross 0 (.0849 to .2624). This interval indicates that mental simulation significantly mediates the effect of sound condition on purchase intention. More precisely, mental simulation registered an effect size of $c' = .1675$, which means that respondents who were exposed to different types of sound condition are estimated to differ by .1675 units in their reported intentions to purchase.

The third mediator of our model, *store likability*, registered an indirect effect that is statistically significant (Table 7), as revealed by a bootstrap confidence interval that does not straddle 0 (.0558 to .2366). This interval indicates that store likability significantly mediates the effect of sound condition on purchase intention. To be precise, store likability registered an effect size of $c' = .1352$. This means that respondents who were exposed to different types of sound conditions are estimated to differ by .1352 units in their reported intentions to purchase.

	Effect Size	BootSE	95% Bias-Corrected Bootstrap CI
M1 (Cue Congruence)	.0626	.0576	-.0443 to .1791
M2 (Mental Simulation)	.1675	.046	.0849 to .2624
M3 (Store Likability)	.1352	.0456	.0558 to .2366
TOTAL	.3654	.0798	.21 to .5237

Table 7. Inference of the indirect effects of sound condition on purchase intention through cue congruence, mental simulation, and store likability.

The direct effect of sound condition (X) on purchase intention (Y) proved to be not statistically significant (Table 8), as confirmed by both the p-value $p = .0717$, and the bootstrap confidence interval that crosses 0 (-.2998 to .0128).

Effect size	<i>se</i>	<i>p</i>	95% Bias-Corrected Bootstrap CI
-.1435	.0794	.0717	-.2998 to .0128

Table 8. Inference of the direct effect of sound condition on purchase intention through cue congruence, mental simulation, and store likability.

The mediation analysis performed above proved that out of all the variables that were expected to mediate the effect of sound condition (X) on purchase intention (Y), only mental simulation (M2) and store likability (M3) proved significant, while cue congruence (M1), did not. *Thus, we confirmed that the relationship between sound condition (X) and purchase intention (Y) was significantly mediated by mental simulation and store likability, but not by perceived cue congruence.*

At this stage, H1 was accepted with all the mediating effects being proved significant, except for cue congruence. H2, H3, H4, H6, and H7 were rejected.

4.6. The Moderation Effect of Brand Familiarity

One core goal of our study was to explore the dynamics between marketing attempts via experiential sensory stimuli and brand familiarity. We thus investigated this relationship by testing whether and to what extent brand familiarity regulates the effect of sensory cues on store outcomes while accounting for the mediating variables. Although the mediation analysis confirmed that the relationship between sound condition and purchase intention was significantly mediated by mental simulation and store likability, it did not confirm the same for cue congruence. As cue congruence did not prove to be a significant mediator, we excluded it from the further performance of the moderated mediation analysis.

4.6.1. Procedure

The moderated mediation mechanism in our model implied that the effect of sound condition (X) on purchase intention (Y) was conditional on the influence of

brand familiarity (W) (Langfred, 2004). The regulating effect of brand familiarity manifested on the relationship between sound condition (X) and purchase intention (Y) both directly and indirectly through the mediators (Mi). Thus, in the case the moderated mediation was proved in our analysis, it could be affirmed that brand familiarity (W) altered the impact that sound condition (X) had on purchase intention (Y) both directly, and indirectly through the two mediators M2 and M3 (mental simulation and store likability). The effects were defined as conditional direct effects and conditional indirect effects, respectively.

We investigated the moderating effect of brand familiarity by conducting an analysis in Process (an extension for SPSS) (Hayes, 2013). We employed the 8th statistical model in the extension. This model was well suited to test a moderated mediation mechanism. In the analysis, the independent variable was represented by sound condition, a nominal variable with three versions. The mediating variables (Mi) were represented by mental simulation (M2), and store likability (M3), as interval-scaled variables. The moderated variable was represented by brand familiarity (W), as a binary categorical-scaled variable. The dependent variable (Y) was represented by purchase intention as an interval-scaled variable.

The Index of Moderated Mediation measured the statistical significance of the conditional indirect effect of brand familiarity (W) on the relationship between sound condition (X) on purchase intention (Y). The respective index represents the difference between the results (bootstrap confidence intervals) obtained from participants who were familiar with the store and those who were not.

To assess the significance of the conditional effects mentioned above, we applied two criteria while analyzing the results. We assessed the p-values and the Bootstrap Confidence Intervals of the effects. The criteria for confirming statistical significance of the effects implied that for an effect of one variable on another to be significant, p-values should indicate a value lower than .05 and zero should be outside of the lower limit (LLCI) and the upper limit (ULCI) of a 95 % Bootstrap confidence interval (as seen under the heading “95% Bias-Corrected Bootstrap CI” in Table 9).

4.6.2. Results

When performing the conditional process analysis, we confirmed that our conceptual framework (Figure 1) was reliable in predicting the significance of the direct and indirect effects of sound condition on purchase intention, as conditioned by brand familiarity. This was confirmed by the model summary that yielded an F ratio of $F(6, 309) = 45.314$, $p < .001$, and an $R^2 = .468$.

Thus, since our model proved to be reliable in assessing the effect of sound condition on purchase intention, both directly and indirectly through the mediators, as conditioned by brand familiarity, we proceeded to evaluate the significance of these effects separately.

Conditional Direct Effects

Brand familiarity (W) did not prove to significantly condition the effect of sound condition (X) on purchase intention (Y). This result was confirmed for both the participants who were familiar and the ones who were not familiar with the brand as revealed by the 95% confidence intervals that cross 0 from (-.3021 to .1106) and (-.4023 to .0157) respectively. The p-values confirmed the same result for both the participants who were familiar ($p = .3618$) and the ones who were not familiar with the brand ($p = .0698$).

W (Brand Familiarity)	Effect Size	<i>p</i>	95% Bias-Corrected Bootstrap CI
W1 (Familiar)	-.0958	.3618	-.3021 to .1106
W2 (Not Familiar)	-.1933	.0698	-.4023 to .0157

Table 9. Inference of the conditional direct effect of sound condition on purchase intention for presence or absence of brand familiarity.

Conditional Indirect Effects

Brand familiarity (W) did not prove to significantly condition the effect of sound condition (X) on purchase intention (Y) through mental simulation (M2). This

result was confirmed by the Index of Moderated Mediation (Table 10) that crosses 0 in the bootstrap confidence interval (-.2019 to .1040).

	M (MEDIATORS)			
	M2 (Mental Simulation)		M3 (Store Likability)	
	Effect Size	95% Bias-Corrected Bootstrap CI	Effect Size	95% Bias-Corrected Bootstrap CI
W1 (Familiar)	.1852	.0850 to .3066	.1409	.0558 to .2475
W2 (Not Familiar)	.1451	.0285 to .2775	.1315	.0345 to .2603
Index of Moderated Mediation	-.0401	-.2019 to .1040	-.0093	-.1258 to .0994

Table 10. Inference of the conditional indirect effect of sound condition on purchase intention through mental simulation, and store likability for presence or absence of brand familiarity.

Next, we identified that brand familiarity (W) did not prove to significantly condition the effect of sound condition (X) on purchase intention (Y) through store likability (M2). This result is confirmed by the Index of Moderated Mediation (Table 10) that crosses 0 in the bootstrap confidence interval (-.1258 to .0994).

The results obtained from performing the moderated mediation analysis above could not confirm neither the direct, nor the indirect effects of sound condition (X) on purchase intention (Y) through the mediators (Mi), as conditioned by brand familiarity (W). This result was confirmed for both of the mediators (mental simulation and store likability). *Thus, we assessed that there was no moderating effect of the mediation relationships in our model.* Hence, we rejected H5.

4.7. Post-Hoc Analyses

After studying the core mechanisms of our conceptual framework (how the relationship between sensory cues and purchase intention was mediated by cue congruence, mental simulation, store likability and moderated by brand familiarity), we decided to analyze further whether demographic variables and the

interactions among them predicted levels of purchase intentions. Moreover, we intended to determine whether, and to what extent participants' perception of the time spent in the store was influenced by the type of sensory stimuli that they were exposed to.

4.7.1. Demographic Indicators as predictors of Purchase Intention

To determine whether participants' demographic indicators influenced their purchase intention, we performed a forward stepwise regression to include some objective independent variables such as age, shopping participation, gender, country of residence, mental simulation, price perception and variable interactions (Table 11). One of the first models based on theoretical criteria yielded an F ratio of $F(9, 306) = 30.335, p < .001$ with an $R^2 = .472$. According to the model, mental simulation and store likability were significant predictors of purchase intention ($p < .001$) as seen in the conceptual framework (Figure 1), but additionally, a new variable was found to be significant in predicting purchase intention: the interaction between age and participation.

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.542	.998		1.546	.123
Attention	.034	.058	.027	0.596	.552
Sound Condition	-.092	.087	-.055	-1.056	.292
Store Design	-.015	.04	-.019	-0.364	.716
Age*Participation	.068	.029	.123	2.306	.022
Gender*Age	.227	.208	.258	1.094	.275
Age	-.53	.361	-.217	-1.47	.143
Gender	-.555	.549	-.19	-1.011	.313
Mental Simulation	.475	.066	.432	7.188	0
Store Likability	.376	.074	.309	5.095	0

Dependent Variable: Purchase Intention

Table 11. Linear regression coefficients with multiple variables predicting purchase intention.

After several attempts to find a model that predict purchase intention better, we obtained a model with fewer predictors and a higher R squared (Table 12). This model yielded an F ratio of ($F(5, 305) = 55.276, p < .001$) with an $R^2 = .480$. The independent variables included in this model were mental simulation, store likability, price of beds, level of shopping participation, and age.

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.472	.401		1.175	.241
Mental Simulation	.459	.067	.419	6.880	.000
Store Likability	.318	.073	.265	4.347	.000
Perceived Prices of Beds	.001	.000	.164	3.842	.000
Shopping Participation	.265	.127	.088	2.082	.038
Age	-.067	.103	-.028	-.648	.517

Dependent Variable: Purchase Intention

Table 12. Linear regression coefficients resulted from the forward stepwise regression predicting purchase intention.

Interestingly, we found that although the coefficient of perceived prices is not significant, it has a positive value. This result signifies that respondents who perceived the beds to be slightly more expensive were more willing to buy the items. A possible explanation of this result is that these participants had a positive impression about the brand, and hence, they were willing to pay more. Moving on, we found that the coefficient of age was negative, meaning that the older the respondents were, the less likely they were to buy the articles. Since the store conveys low prices, it might not be as attractive to older, perhaps wealthier customers, that tend to look for superior product quality. Even so, we believe that these two insights are case-specific and hence not generalizable. Lastly, we observed that participants who reported to have higher participation in the decision-making process reported a higher purchase intention than participants who reported to have lower participation.

4.7.2. The influence of Sensory Cues on Time Perception

Typically, time is perceived to pass slower when performing a tedious activity or having an experience that is less than enjoyable (Sackett, Meyvis, Nelson, Converse, & Sackett, 2010; Zakay, 1989). Therefore, we expected that participants who enjoyed the experience of watching the video to underestimate the duration of the video. On the other hand, we expected participants who did not enjoy the experience of watching the video to overestimate the duration of the video. In order to study the impact of sensory cues on perceived time spent, we computed the difference between the length of time that participants reported the video to have lasted and the actual length of the video. The negative values obtained represented underestimation of video length, whereas positive values represented an overestimation of video length. Results show that overall, participants' estimation of video length was quite accurate.

We further explored whether participants' perception of the time that they spent in viewing the video featuring the store depended on the different treatments they were exposed to. To unveil the accuracy of this statement, we performed a two-way ANOVA (Table 13). The main effect of store design resulted in an F ratio of $F(1, 301) = 14.490, p < .01$, indicating a significant difference between the new design ($M = -13.14, SD = 54.89$) and the old design ($M = 11.33, SD = 54.70$). Conversely, neither the main effect of sound condition nor the main effect of the interaction between sound condition and store design proved significant.

Tests of Between-Subjects Effects

Dependent Variable: Video length (variation)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	61304.632	5	12260.926	4.099	.001
Intercept	135.902	1	135.902	.045	.831
Store Design	43346.493	1	43346.493	14.490	.000
Sound Condition	12945.971	2	6472.985	2.164	.117
Experiential Set (Store Design * Sound Condition)	1916.454	2	958.227	.320	.726
Error	900412.820	301	2991.405		
Total	962094.000	307			
Corrected Total	961717.453	306			

R Squared = .064 (Adjusted R Squared = .048)

Table 13. Test of within-subjects effects and between-subjects effects of store design, sound condition, and the experiential set on video length.

To sum up, store design was proven to have a significant direct effect on the participants' perception of the length of the video. Specifically, on average, participants who were exposed to the new design of the store perceived the time spent watching the video to be shorter, compared to the length of time perceived by the ones who were exposed to the old design of the store. Conversely, sound condition and the experiential set (the interaction between store design and sound condition) were not proved to be significant predictors of participants' perception of time spent watching the video.

5. GENERAL DISCUSSION

This section summarizes our findings and provides further reasoning for why the expected phenomena occurred or not.

The purpose of our research was to show that the application of experiential marketing through an experiential set that simulates a real-life consumption

situation is superior in driving purchase intention in a retail environment, compared to its application through sensory cues that merely make the in-store environment more pleasant. Within this purpose, we assumed that in driving store outcomes, the synergic effect of the sensory cues that formed the experiential set was higher than the effect of these cues taken separately.

Surprisingly, we could not prove the synergic effect between sound condition and store design (experiential set) on purchase intention. Hence, H3 was rejected. Consequently, H4 stating that a superior experiential set will positively influence purchase intention through the mediators was rejected as well. Relatedly, we observed that although participants did perceive congruence between store design and sound condition, cue congruence did not influence purchase intention. This result is explained by the fact that although participants, as expected, enjoyed the attractive store design and sounds in the store (Smilansky, 2009), they were not expecting an “experience.” Since JYSK is a furnishing store that offers household products on the lower price range, participants might not have focused on how entertaining the store is (hedonic value), but rather on the practical (utilitarian) value that the products could provide (Smith, Venkatraman, & Wortzel, 1995). Hence, in a real shopping scenario, we suspect that managers would succeed in increasing purchase intention through employing a sensory experiential set, when the customers expect to receive hedonic value from the product (e.g., organic body cream) (Cramphorn, 2008).

Regarding store design, we could not find sufficient support to affirm that the new design had led to a higher level of purchase intention than the old design. Hence, we rejected H2. This finding can be plausibly explained by the specifics of the product category that was studied. We aimed to evaluate participants’ purchase intention of bedding articles exclusively. Bedding items are generally purchased in response to a thought-through decision, rather than on impulse (Jones et al., 2006). Even though participants did find the new design more pleasant, and thus experienced positive emotions (Donovan, 1994), they would not base a purchase decision of such on emotional factors. Hence it is reasonable to affirm that an attractive store design would not have the expected influence on customers’

decision-making process if the purchase of the product requires careful consideration.

Relatedly, although we could not find strong support for affirming that store design influenced purchase intention, we did notice that store design had a significant effect on time perception. Participants who were exposed to the new design perceived the length of the video that they watched in the survey to be considerably shorter compared to participants who watched the video featuring the old design. In one study, Flavian et al. (2001) demonstrated that customers who had a more positive shopping experience tended to linger longer in a store. Indeed, Flavian's findings confirm that customers' time perception is inversely proportional to their store satisfaction. Thus, it can be affirmed that participants in our study liked the store with the new design better than the counterpart. Hence, we expect them to spend more time in the former than in the latter store if the study was replicated in a real-life setting.

Another core focus of our research was to confirm that cue congruence, mental simulation, and store likability mediate the effect of sound condition on purchase intention. Consequently, we expected sound-zoning to be the superior sound condition in driving perceived levels of cue congruence, mental simulation, and store likability. Firstly, we found that sound condition is indeed a reliable predictor of respondents' level of purchase intention. Moreover, when analyzing the effects of all the versions of sound condition on purchase intention, we observed that, as expected, sound-zoning was superior in driving participants' purchase intention, compared to the no-music and music conditions. Hence, we accepted H1.

Opposite to what we expected, the effect of sound condition on purchase intention was not mediated by cue congruence. Although respondents perceived cue congruence, it did not lead to a higher level of purchase intention. On the other hand, we did manage to prove that store likability and mental simulation mediate the relationship between sound condition and purchase intention. Additionally, we observed that participants' levels of store likability varied across the three

versions of sound condition that were tested, with sound-zoning outperforming the no sound and music conditions. Conversely, when we studied the same effect for mental simulation levels, we only observed a significant difference between the no sound and sound-zoning conditions. Surprisingly, the difference between music and sound-zoning was not significant.

Another exciting finding resulted from studying whether brand familiarity regulated how sensory cues influenced participants' level of purchase intention through perceived levels of mental simulation and store likability. After exploring this supposition, contrary to what we expected, we found that both participants who were familiar with the brand, and those who were not, perceived similar levels of mental simulation and store likability as a result of the sensory stimuli that they were exposed to. Hence we rejected H5, H6, and H7, stating that brand familiarity regulates the positive effect of a superior sound condition, store design, and the experiential set respectively, on purchase intention. Therefore, it can be argued that an improvement in sensory cues in a retail setting would leverage the in-store customer experience, irrespective of whether customers are familiar with the brand or not.

Lastly, findings resulted from Post-Hoc analyses showed that participants' shopping responsibility had a significant effect on purchase intention. This finding seems reasonable since a member of a household who assumes (or perceives to have) a higher shopping responsibility tends to enjoy the shopping process more (Mortimer, 2012), and shopping enjoyment facilitates customers' purchase decision-making process (Williams, 2006).

6. IMPLICATIONS FOR BUSINESS PRACTICE

This section discusses the managerial implications of our findings that can be of particular interest for managers and marketers in the brick-and-mortar retail industry.

First, we posit that retail marketers should be aware of the significant positive impact that music and soundscapes have on mental simulation, store likability, and hence, in purchase intention. Thereby, marketers could apply these findings

depending on their immediate business priorities. If their goal is to increase sales with a limited budget in order to get immediate results, it seems reasonable to focus on in-store music and soundscape. If the store layout allows, retail managers and marketers are encouraged to employ sound-zoning, to adapt the sound in the store in accordance with the semantics of any store department of their interest. As the results of our study unveiled, perceiving sounds that fit the product category in a specific store department (sound-zoning) enables customers to imagine themselves using and owning the products, and consequently, to like the store more.

Second, we observed that although store design did not have a direct impact on participants' intention to purchase bedding items, it did impact the perceived time spent watching the video featuring a virtual in-store experience. Previous literature states that spending extra time in the store is related to positive emotional factors (Donovan, 1994). It can be thus assumed that participants of our study experienced more positive emotions when watching the video with the new store design, than the old store design, as a response to liking the store with the new design more. Therefore, if the current goal of a marketing team is oriented towards improving the overall customer experience rather than uplifting sales, we recommend them to add the improvement of store's design to their agenda.

Thirdly, we observed that the experiential set was not impactful in driving purchase intention for JYSK. This retailer offers product categories that are expected to deliver utilitarian value. Thus, we recommend brands that offer similar products not to invest in experiential marketing as a means to drive sales. Brands that offer products that satisfy basic needs on the low price range are advised by existing marketing literature to integrate comparison shopping and quality service delivery in their marketing mix instead (Smith et al., 1995). These brands could differentiate themselves among competitors by employing price comparison websites and delivering outstanding service and customer support (Smith et al., 1995).

Finally, we observed that the impact of sensory cues on participants' perceived levels of mental simulation, store likability, and hence purchase intention did not differ between participants who were familiar with the brand, and the ones who were not. In an applied sense, it can be affirmed that a retailer's attempt to influence sales via external stimuli will not be diminished by customers' familiarity with the brand. This finding could be perceived as "good news" for managers who are considering to invest in store atmospherics, as the positive effects of this endeavor justify the investment for the current and the new store clientele. Otherwise said, even if companies choose to focus on customer retention rather than customer acquisition, they will still reap benefits from the improvements implemented in the store environment via sensory marketing.

7. LIMITATIONS AND FURTHER RESEARCH

This section addresses the limitations of the study and discusses intriguing avenues for further research.

The arena of our research was a retail store that sells home furniture and household items. As proven by research (Giboreau & Body, 2007; Raz et al., 2008), applying sensory and experiential marketing across different product categories requires a specifically proposed strategy. Additionally, previous literature suggests that the effect of sensory cues is stronger in product categories that are essentially more experiential (Spence, Puccinelli, Grewal, & Roggeveen, 2014). Therefore it would be worthwhile to replicate our study in the future by estimating how the strength of the influence of experiential marketing on store outcomes varies across product categories (fashion, food and drinks, technology).

Cue congruence: One important limitation of our study is that we could not prove the influence of cue congruence on store outcomes, although research does affirm that cue congruence is relevant in experiential marketing. Thus, it belongs to further research to uncover what are the specific conditions under which congruence of sensory cues significantly impacts store outcomes. In our case, we tested cue congruence in the context of household items. This product category is

not perceived as experiential in nature, and thus, it is expected to provide much more utilitarian value, than hedonistic. Hence, it is plausible that cue congruence between sensory stimuli would have a stronger influence on store outcomes when achieved in stores that offer products that are hedonistic in nature. Several studies featured hedonistic industries as a platform for studying the effect of sensory stimuli on purchase intention, for example, gourmet food, hospitality (Williams, 2006), and art (Cirrincione, Estes, & Carù, 2014). Nonetheless, they do not study the effect of cue congruence on store outcomes when designing experiences that simulate real-life consumption situations. Therefore, we posit that further studying the degree to which cue congruence impacts store outcomes depending on the product nature that this effect is tested on, would allow companies to tailor their retail strategy more effectively.

Brand familiarity: It is worthwhile to discuss that we could not prove that brand familiarity alters the effect of sensory cues on participants' level of purchase intention. Even so, researchers could build upon our study by further exploring the regulating effect of brand familiarity on the effectiveness of sensory marketing, by only surveying the subset of respondents who were familiar with the brand. The reasoning behind this suggestion lies in the fact that this subset of participants has been in contact with multiple brand touchpoints that shaped their brand attitudes. Yoo et al. (1998) proved that brand attitudes and perceptions are altered by the valence of experiences acquired in a retail environment. In line with this, we challenge researchers to explore whether findings that stipulate experiential marketing to influence brand attitudes (Pine & Gilmore, 1998) are also viable in reverse. Otherwise said, it would be rewarding to explore whether customers' previously acquired brand attitudes would affect their perception of a new in-store experience.

Another opportunity for research pertains to replicating this study in a physical store. Since we intended to study the underlying mechanisms (mediating and moderating effects) through which sensory stimuli influence purchase intention, we decided to conduct the study via an online survey, and not as a field experiment. Employing a survey to investigate underlying mechanisms of the relationships between the variables depicted in the conceptual framework of our

study allowed to test them under controlled conditions. Thus, we managed to isolate the individual effects of the variables mentioned above, and consequently, to gather process evidence for all the mechanisms. However, replicating our study as a field experiment presents a great advantage. Namely, a field experiment would allow researchers to measure dependent variables that would otherwise be unfeasible to study through a survey, for instance, sales outcomes and time spent in the store. Additionally, replicating this study in a real store will ensure the ecological validity of the results.

Drawing our recommendations to a close, we suggest that a worthy extension of our study could be to enrich the in-store experience by incorporating technology in the experiential set (e.g., holograms, virtual reality). A consulting company affirms that holography is a business disrupter that can help organizations seamlessly merge the real and digital worlds in ways that advance corporate objectives (Cognizant, 2017). The positive influence of applying emerging technologies as a marketing technique is also supported academically by empirical research (Fiore, Kim, & Lee, 2005). The findings of this research advocate that technological enhancements in a retail environment increase shopping pleasure and experiential value. Thus, researchers could incorporate emerging technologies in the in-store experiential set and explore whether they are superior in driving store outcomes, mental simulation, and store likability, compared to traditional sensory marketing.

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9. APPENDICES

Appendix 1 - Survey Screenshots

Dear participant,

This survey is part of a master thesis that studies product recall in a retail setting. The survey will take approximately 6 minutes to complete. The data collected from the survey is strictly confidential and reported on an aggregate level. We would highly appreciate your discretion as to not disclose the content of this experiment to the rest of the participants.

Thank you for your participation!

Kind regards,

Mauricio and Alina

MSc in Strategic Marketing Management - BI Norwegian Business School

Disclaimer.

Please make sure you that you are in a quiet environment, with no sounds playing in the background. This study requires participants to wear headphones. Please put on your headphones and play the sound recording below. Adjust the volume to a comfortable level, so that the voice is clearly intelligible and follow the instructions as you go. You may play the recording multiple times.

What word did you hear in the recording? Please type it in the box below.



After visiting a retail store, people often remember some products better than others. This study explores how people's memory for products works. The study has three parts:

1. First, you will watch a short video that shows the usual path that a customer would follow in a specific furniture store. You are expected to pay attention to the video, but you do not need to focus on any particular object. Please make sure that the video sound is turned on, so that your store experience is as realistic as possible.
2. Next, you will be asked to answer a few questions about the store.
3. Lastly, you will be shown various objects that may, or may not have been present in the store. Your task will be to evaluate if each of these objects was present in the store.

Click 'next' to proceed to the store video.

Please watch the video below and do not proceed until the video is over.



How long do you think that the video lasted (in seconds)?

Overall, my virtual in-store experience was:

Much worse than expected

Worse than expected

As expected

Better than expected

Much better than expected

Please read the following statements related to your virtual in-store experience. Select the answer that feels right for you.

	Strongly disagree						Strongly agree
	1	2	3	4	5	6	7
The physical environment in this store is of a high standard.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It was easy to imagine myself in a potential purchase situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The interior of the store is appealing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like the layout of the store.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The music/soundscape and the store design fit together.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The music/soundscape played in the store is appropriate to the environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The lighting in the store is appropriate to the setting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Think about the store that was featured in the video. Please rank the following attributes according to your perception. (1- most characteristic to the store, 4- least characteristic to the store).

1	Cosy feeling
2	Pleasant atmosphere
3	Clean environment
4	Attractive facility

Please read the following statements and select the answer that describes your attitude the best.

	Strongly disagree						Strongly agree
	1	2	3	4	5	6	7
It is very likely that I will buy a bedding item from this store.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The next time I need a bedding item, I will consider purchasing it from this store.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that the physical environment in the bedding area is excellent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The bedding area looks cozy and inviting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see the bedding products, I imagine myself owning them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The music/soundscapes played in the bedding area is appropriate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I visited the bedding area in real life, I would have a strong desire to sit or lay down on the beds.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The music/soundscape in the bedding area makes me feel uncomfortable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please read the following statements and select the answer that describes your attitude the best.

	Strongly disagree						Strongly agree
	1	2	3	4	5	6	7
The bedding area looks inviting, and I would like to see how the mattresses and the fabric feel like.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I visited the bedding area in real life, I would have lingered in the bedding area longer than in any other area of the store.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The music/soundscape in the bedding area makes me feel relaxed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The music/soundscape in the bedding area makes me feel calm.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This is an attention check question. Please select "strongly disagree".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The bedding area makes me reminisce (remember) a familiar place.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see the bedding products, I imagine myself using them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The bedding area feels like home.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you needed to purchase a new bed, would you consider buying it from the store that was previously shown in the video?

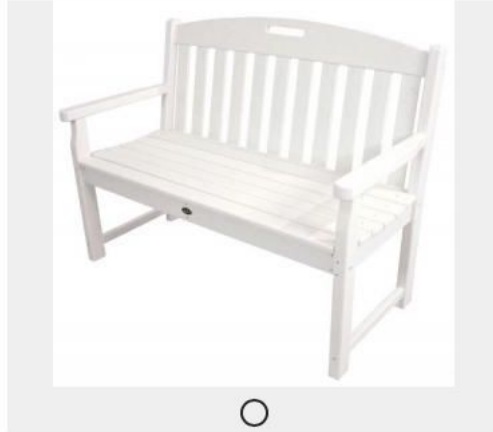
Yes

No

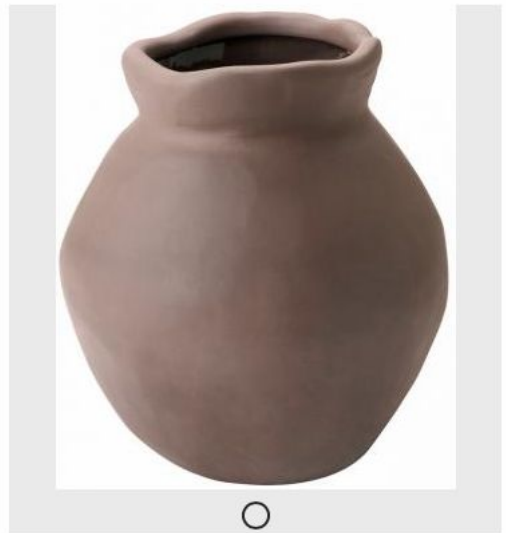
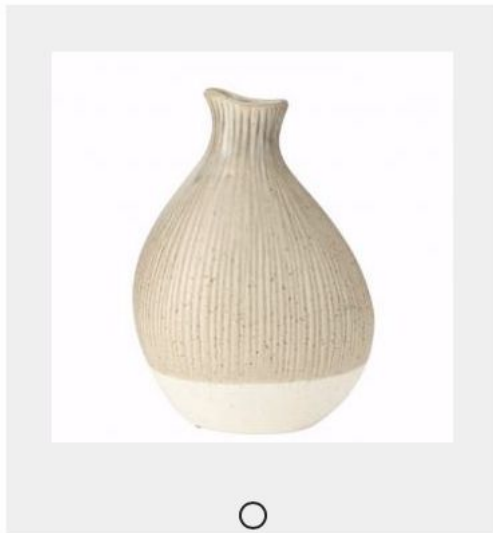
How much do you think that a bed from this store costs, on average? Please type the sum, in EURO.

You will now be shown pictures of different objects that might or might not have been present in the video. You will have 10 seconds to choose an option. Please select the product that you remember from the video. This is an example of the task that will be given to you:

Which bench did you see in the store?



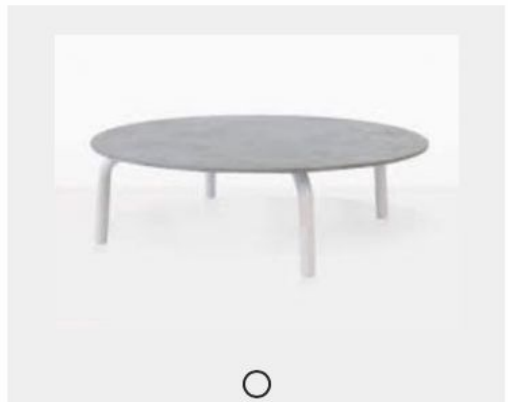
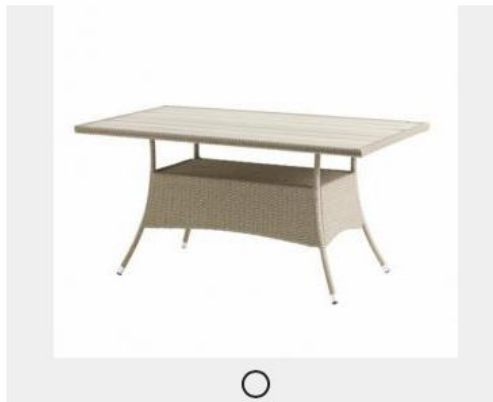
Which vase did you see in the store?



Which storage box did you see in the store?



Which table did you see in the store?



The most frequently sold items in home furnishing stores are small objects such as candles, vases, photo frames, etc. Out of the aforementioned products, which type do you think is sold the most? This is an attention check question. Please select "Other" and write the word "Pillowcases".

Candles

Vases

Photo Frames

Artificial Plants

Other

How old are you?

What is your gender?

Male

Female

Other

In which country do you currently reside?

When it comes to purchasing furniture and related household items, to which extent (in %) are you involved in the decision-making process in your household?

10%	20%	30%	40%	50%	60%	70%	80%	90%
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are you familiar with the brand Jysk?

Yes

No

We thank you for your time spent taking this survey.
Your response has been recorded.