



Mapping consumers' semi-conscious decisions with the use of ZMET in a retail market setup

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Abstract The essence of marketing today for retail consumers is to produce a favorable sensory brand experience to gain competitive visibility. Experiential marketing is a phenomenon that is in the current trend of usage by marketing experts to ensure that consumers are more involved in the purchase decision-making process. Purchase decisions are the results of both conscious and semi-conscious consumer experiences. This paper explores the underlying consumer thoughts and emotions influenced by retail store attributes (fragrance, music, store layout, and temperature) which play a significant role in their purchase decision making affecting their mood and behavior. The study introduces Zaltman Metaphor Elicitation Technique (ZMET) as a qualitative tool to elicitate hidden understanding of a consumer's decision-making process by stimulating human senses and interpreting the attributes that ultimately contribute to consumer decision-making. The researcher selects a well-known retail brand to understand and identify the hidden metaphors contributing to consumer satisfaction through retail atmospherics. The study brought

out prominent network retail clusters and their supporting elements which ultimately contribute to consumer satisfaction during the purchasing process inside a retail store. The study would enable store managers to identify the relevant core elements hidden in the subconscious consumer minds which would facilitate enhanced customer satisfaction during designing their retail stores.

Keywords Metaphors · Theme mapping · Consumer satisfaction · Retail · ZMET · Shopping experience · Retail store atmospherics · Experiential marketing · In-store decision-making

JEL Classification M001 · M31

Introduction

Retail marketing managers in today's era are emphasizing more on the ambiance and atmosphere of the point of interaction for the consumers and the sellers for the consumption of products and services. Retailers strive to stand out from rivals by offering a pleasurable buying experience (El Hedhli et al. 2016). According to Dion and Borraz (2017), a key component of retail store management now focuses on luring and emotionally tying in consumers with enjoyable experiences, especially when it comes to fostering

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social relationships through improved retail store attributes.

Keeping environmental conditions in mind, the sensory cues, typically, light, temperature, color, and odor are becoming increasingly important for creating a lasting emotional impact on the consumer's mind (Donovan et al. 1994) and plays a significant role in evaluating stores and builds on trust, credibility, and satisfaction (Baker et al. 1994). Babin and Attaway (2000) discuss how atmospheric cues play a significant role in building a lasting impression of a shopping experience (Turley and Milliman 2000; Turley and Chebat 2002). Terblanche (2018) suggests retailers strive to stand out from their competitors by offering a pleasurable buying experience. Retail store atmospherics are important background factors that influence store ambiance, affect customers' sensory perceptions, and influence their in-store shopping behavior (Roggeveen et al. 2020). Research on store atmospherics has examined a variety of favorable reactions to store environments, including consumer contentment, favorable Word-of-Mouth (WOM), and patronage intentions (Burlison and Oe 2018; Davis 2013).

The academic literature in the field of retail design store attributes lags behind practice. In practice, pertinent research queries that pinpoint the characteristics of retail stores that result from sociological or technical advancements typically surface first. Emphasis is placed on externalizing retail consumers' expectations and experienced retail designers' tacit knowledge.

Past studies understanding the retail store attributes affecting consumer thoughts and emotions have focused on understanding the major determinants for a delightful shopping experience (Kauppinen-Räsänen et al. 2020a, b). Also, Elmashhara and Soares (2022) study focuses on understanding how consumer attitude toward retail atmospheric cues contributes to enhanced shopper satisfaction. There is a clear gap in understanding the acceptability of retail store attributes affecting the thoughts and emotions of consumers from an embodied semi-conscious retail experience. To address this research gap, our study investigates and examines the underlying fundamental factors (core elements) serving as a linkage between the design and purchase decision-making intentions of consumers, which are becoming more and more important in the competitive environment, thus

addressing the key research question of understanding the retail store attributes that affect consumer thoughts and emotions in their retail purchase decisions from an embodied semi-conscious standpoint.

An original research methodology is presented in this study. This method can reveal previously unrecognized parts of the consumer's purchase decision-making intentions to make purchases that are influenced by retail store attributes. The use of a novel approach is also meant to serve as motivation for readers to investigate more complex and critically based research techniques when they are looking at other facets of the retail purchasing experience.

Literature review

Color schemes, lighting, music, and fragrance as part of retail store atmospherics

Past studies have shown retailers alter the environment to encourage desired outcomes and improved in-store behavior (Babin and Darden 1996; Francioni et al. 2018). This study is based on the S–O–R paradigm (Mehrabian and Russell 1974), which claims that stimuli (S) that cause behavioral responses (R) in an individual (O). Environmental psychologists devised this method, which can be used to comprehend how a recipient responds to a collection of stimuli. The importance of atmospherics as a stimulus on a variety of customer behavioral outcomes has been reinforced by earlier studies on retailing (Biswas et al. 2014; Lee et al. 2018).

Retailers deploy ambient store attributes including color schemes, lighting, music, and fragrance which are also widely known in marketing studies.

According to Ainsworth and Foster (2017), previous research acknowledged the usage of color, lighting, and music as part of retail atmospheric cues (Babin and Attaway 2000).

Chebat and Morrin (2007) suggested color be a powerful design technique that may be utilized to entice customers. It has been used to create an image or an ambiance. Custers et al. (2010) discussed that past studies have emphasized the crucial role lighting plays in establishing mood (Quartier et al. 2014).

Color, which is an atmospheric variable, that defines the visual attributes within a retail store (Bellizzi et al. 1983) is categorized into warm and

cool colors distinguished through longer and shorter wavelengths (Crowley 1993). Van Rompay et al. (2012) study places color on a similar atmospheric cue where the impact is mainly measured through the presence or absence of the same. Spence (2007) study suggests that if a product inside a retail setup could match the balance between all the sensory cues the consumers could eventually have a more effective multi-sensory experience. Pan and Zinkhan (2006) studied that the key to success for a retail firm is to ensure a pleasurable ‘in-stay’ experience for their consumers. It is currently the need of the hour to produce a welcoming store ambiance, demonstrating positive vibes and an enhanced shopping experience (Douce and Janssen 2013).

Grewal et al. (2003) suggested music to be one of the least expensive tools to improve consumers’ perceptions. Implementation of music in retail stores, which started on a basic level by either making it present or absent, did show impressive results in influencing consumers’ purchase intention, emotions, and satisfaction across retail setups where music was present (Grewal et al. 2003). Music is looked after more like an associative during purchase feature inside a store which does influence consumer buying outcomes (Hui et al. 1997). Mattila and Wirtz (2001) further discussed how consumers with a distressed mind could be lifted by music heightening their arousal which further contributes to a positive in-store buying experience.

Fragrance in recent times is one of those cues which has received significant attention giving ample scope to marketers to believe that scent marketing is the next big thing in the continuous change of retail atmospheric strategies adopted by marketers. Bosmans (2006) study unfolds how fragrance plays a critical role in products and store evaluation which eventually contributes to the increased time spent inside the retail outlets (Mitchell et al. 1995) which thus contributes to increased impulsive purchasing attitudes among young shoppers (Morrin and Chebat 2005; Spangenberg et al. 2006).

Anticipating the success of these studies laid the platform for Herz (2010) study which unfolds that the presence of fragrance might have an impact on the purchase intentions of consumers. Research studies on the extensively large retail environment (Mattila and Wirtz 2001; Spangenberg et al. 2006; Haberland 2010) have also brought out that fragrance cues exaggerated

spending typically under aromatic surroundings. Similar observations were found considering the same setup in a shopping mall (Chebat and Michon 2003; Morrin and Chebat 2005). It is indeed clear that fragrances inside retail outlets created enhanced consumer spending than having a specific general environment for a retail setup (Mattila and Wirtz 2001; Chebat and Michon 2003). Consumers influenced under aromatic conditions tend to develop affection toward the retail outlet (Haberland 2010), or in some cases the affection forms because of the increased amount of time spent inside the retail outlet (Gueguen and Petr 2006). Fragrance cues when tested in a retail setup would work very easily when clubbed with tactile cues and other sensory cues. Olfactory cues would go better off matching with its target when a specific product category could be identified with a specific fragrance. The consumers would be able to reconnect and be retained with the store and its associated product very easily.

Technology these days is playing a crucial role in setting the mood for consumers inside a retail outlet, from being it like artificially induced fragrance to AI-processed facial and music biometrics (Rodgers et al. 2021). Roggeveen et al. (2020) proposed a framework to capture consumer movements on multiple retail touchpoints both inside and outside the retail stores. Moreover, all-around service excellence along with a multi-sensory connected environment is equally crucial in building a customer connection with the brand (Raisanen et al. 2020). Contrary to these studies, Douce and Adams (2020) study reveals that the sense of pleasantness decreases when intense retail cues are added to a retail store environment. Elmashhara and Soares (2022) study reveals composite store atmospheric cues influence shoppers’ buying intentions and boost positive WOM as well.

Zaltman metaphor elicitation technique

ZMET was introduced by Zaltman at Harvard in the early 1990s. The technique was represented as: “Human thoughts contain a lot of activity that they are unaware of. The majority of what affects what individuals say and do happens subconsciously. It requires new methods because of this: To access secret information to access what people are unaware they are aware of” (Pink 1998, p. 214).

ZMET aims to apply its patented methodologies to discover these deep metaphors by exploring beyond consumers' conscious and unconscious mental processes to discover why and how people think and act the way they do (Zaltman and Zaltman 2008).

The two essential components of ZMET are photo elicitation and means-end theory. As was previously mentioned, one of three methods that use photographs to elicit subjective worlds through interviewing is known as photo elicitation. The means-end theory suggests a value chain that connects a product's characteristics to its practical and emotional (or psychosocial) effects, as well as to the development of individual values (Ha and Jang 2013). According to ZMET's interpretation of the means-end theory, product, and service qualities have implications, such as product advantages and underlying personal values that customers want to realize through their use. ZMET elicits, describes, and links consumers' thoughts and feelings to characteristics of goods or services. Previous studies discussed how ZMET contributed to figuring out embodied hospitality encounters (Ji and King 2018). Also, Jung et al. (2021) study discussed how using ZMET, three virtual reality themes were uncovered to fully understand the immersive consumer experience, whereas Wu and Chen (2012) study suggests a new theoretical framework for consumers' e-learning usage behavior.

The study chose Zaltman Metaphor Elicitation Technique (ZMET) as a qualitative tool to decipher the semi-conscious thoughts and feelings of consumers by identifying and matching the deep metaphors. Zaltman and Zaltman (2008) suggested how individuals assess their immediate surroundings through metaphors, as metaphors live through the way humans perceive things having a more prominent understanding of what they encounter and subsequently forming their strategy for action. Zaltman and Zaltman (2008) investigated that metaphors are deeply rooted as they operate more from an unconscious state of mind. Consumers at most times are not aware of the behavior of the unconscious mind and the subsequent impact it has on decision-making. Zaltman et al. (2015) however argue that consumers seldom receive any mechanism to nurture those unconscious thoughts. ZMET studies when combined with laddering interviews proved to be highly successful in finding out structural associations between components thus

providing a way to elicit and map both the content and the structure of the consumer's mental model.

The discussion above created the way for the study question, which is: "Understanding the retail store attributes that affect consumer thoughts and emotions playing an important role in their retail purchase decisions.

Methodology

Data collection and analysis

The researchers sent invitations to 20 people they had chosen using purposive sampling. Purposive sampling enables researchers to choose study participants from the general public using their discretion (Patton 2002). With the aid of this sampling technique, the researchers were able to choose participants from the retail shopping mall where respondents have previously received such services. After receiving affirmative responses from more than 80% of the respondents within 7–10 days, initial screening was conducted considering their customary manners and behaviors. Finally, a total of 15 human individuals were chosen to take part in the research's next phase.

The respondents selected mainly belong to the age group of 18–40 years, deliberately to ensure a maximum understanding of experiential marketing approaches, as suggested by Chebat et al. (2009).

A brief profile of the participants is presented in Table 1.

To choose the best analogies for the study at hand, the researchers made sure that the respondents they recruited had at least some prior experience of going to a store of that sort. The subjects were chosen, and a subject identification id was given to them so that every respondent becomes unique and later the researchers do not have any confusion and complication dealing with the enormous set of photos received from the respondents. The respondents were provided with a soft copy of the Researcher Instruction kit, which is depicted in Table 2. Below.

The subjects were introduced to the context that best described "what they were feeling during their retail shopping experience." Interviews took place in Lodz, Poland. The majority of the images might be interpreted as metaphors, as can be seen in Fig. 1. Picture 7 & 8 for example provides an analogy for the

Table 1 Profile of participants. Source: Own study

Participant no.	Age	Gender	Education	Prior experience in retail shopping under aromatic influence	Type of store
1	28	Male	Medical University Student	Yes	Apparel Retail Store
2	24	Male	University—Postgraduate	Yes	Apparel Retail Store
3	34	Female	Professional	Yes	Ladies Toiletries Store
4	27	Male	Master's Student	Yes	Men's Clothing Store
5	21	Male	Graduate Student	Yes	Apparel Retail Store
6	37	Male	Working Professional	Yes	Men's Clothing Store
7	39	Male	Business	Yes	Apparel Retail Store
8	19	Female	Graduate Student	Yes	Women Accessories Store
9	20	Female	Student	Yes	Apparel Retail Store
10	22	Male	Student	Yes	Apparel Retail Store
11	28	Female	Master's Student	Yes	Apparel Retail Store
12	31	Female	Working Professional	Yes	Women's Clothing Store
13	36	Male	Working Professional	Yes	Men's Clothing Store
14	25	Female	Master's Student	Yes	Apparel Retail Store
15	29	Female	Business Owner	Yes	Apparel Retail Store

Table 2 Research instruction kit. Source: Chatterjee and Pandey (2019)

ZMET interview topic	The stated event of the research is referred to as a topic presented to a subject for ZMET, on which the interviewee must elaborate their emotions throughout the interview. Here the situation handed over was—“Elaborate on your feelings during your retail shopping experience”
Demographic data form for the topic	Form comprising statistically expressed socioeconomic characteristics of a population, including average family size, age, sex, education level, income level, marital status, and employment
Confidentiality agreement	A paper outlining the voluntary disclosure of data contract and the subject privacy information
Thank you note	A unique thank you note for their voluntarily taking part in the study

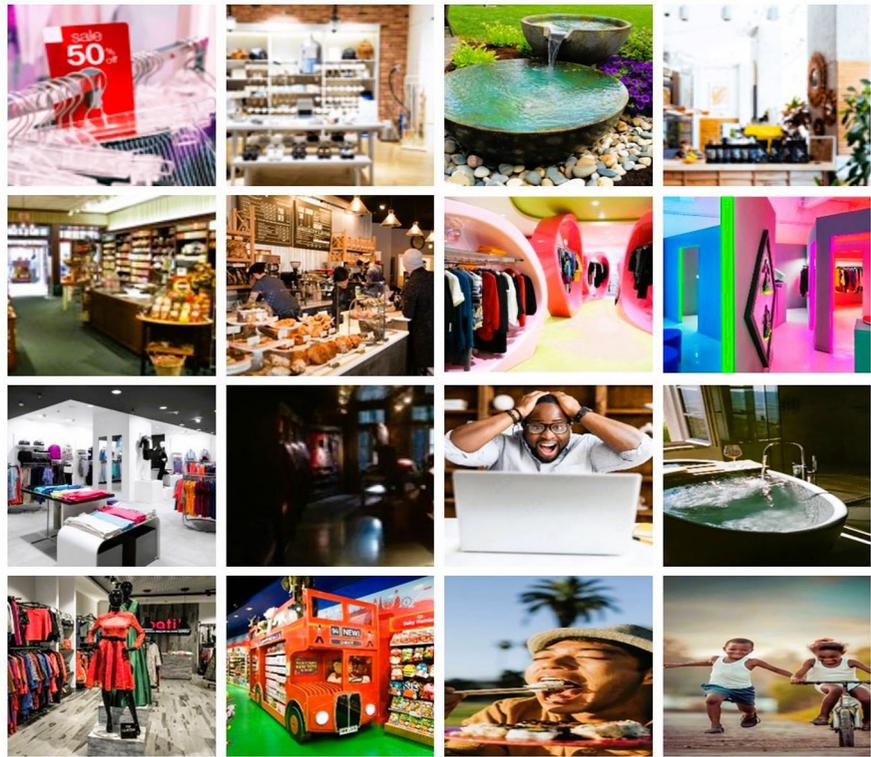
vibrant color and fragrance used in the retail stores that indicate the retail store attributes contributing to the consumer's purchase decision making affecting their mood and behavior.

Due to ethical considerations, this research carefully respects the subject information's confidentiality; as a result, no identifying information was recorded at any point during the interview procedure. To have a more systematic and professional approach toward the respondents, all interviewees are given a subject identification id at the time of selection, which may have been accessed by the researchers just for this research purpose. The study data that was taken from each participant and saved using industry standard encryption software has been connected to the subject identifying ids. The subject identifying numbers have

been deleted from the database after the conclusion of the study.

The subjects are then encouraged to snap images with their cameras or to download photographs from the internet that they believe are relevant and related to the sentiments they perceive when placed within the provided topic or circumstance. They are strongly instructed not to choose photos that show the scene or the subject in detailed detail, but rather to bring photos that show the metaphors related to the subject. One week was provided for each participant to gather, choose, and mail the digital copies of the photos to the researchers. For the interview procedure, the images from each subject are printed and given a unique number. Each topic was then given the convenience of receiving an interview date. A room with facilities like

Fig. 1 Selected participant images—collage. Source: Own survey-based outcome



air conditioning, cozy seating, drinking water, and refreshments was chosen for the interactive session. The subjects are unaware that the room has been outfitted with cameras from various angles.

Personal interview

The process of interview for the respondents followed a 7 steps approach involving the respondents in the interview for an average time of 1 h. 35 min with the minimum and maximum time load of 1.15 h. to 1.55 h.

A brief greeting and assurance that there were no right or incorrect responses to the interview questions preceded the interviews. The interviewer then asked if the interviewees had any further photos, they would like to bring but could not locate during their search (i.e., missing images step). The respondents were then prompted to share a series of tales connected to the different images (i.e., the storytelling step). The interviewer recorded any mentions of constructs that were pertinent to the research questions about emotions, their causes, meanings derived from the experiences, and behavioral intentions while they were

being listened to. The researchers formed each person's mental map by using arrows to denote casual relationships. If only feelings were expressed and no justifications were given, the interviewer prodded the subject to elaborate on their thoughts.

When more clarity was required, the interviewer used reflective interviewing techniques including restating and summarizing to make sure the researchers had understood everything correctly. The researcher asked respondents if they would like to broaden any frames of the photo to better depict their emotional encounters after giving each picture's story (metaphor elaboration step). The respondents were asked to group the photographs into categories using their logic after discussing each image following the methods mentioned above (the triad task). The respondents were then instructed to describe their emotions using the five senses (sensory images step). Interviewees were prompted for any further images after the sensory image process (missing images step). The interviewee might want to use the opportunity of the interview's conclusion to communicate their emotional contacts through further photographs, so

the researchers thought it was worthwhile to execute this step at the beginning of the interview.

Afterward, participants were instructed to compile their extensive experiences into a cogent short story (vignette step). Finally, the interviewees were then instructed to make a collage.

Findings

The transcribed laddering interviews and the metaphor elicitation study resulted in four themes or core elements: (1) Convenience (2) Sensory experience (3) Mood & Feelings (4) Memory Revisit. Under each theme, we present several selected illustrative excerpts from the interviews and visual images that were sourced from our participants (see Fig. 1a–p [starting from left to right; from top to bottom]).

First core element: convenience during retail shopping

The raw attribute that emerged from our study was that consumers' subconscious experience could bring out a sense of convenience during their retail experience journey. Consider the following excerpt from Participant 4 (male, 27 years old): "I find it extremely helpful when I get to see clear informative signage and navigation inside the retail store (Fig. 1a)". The other insightful raw attributes that came out are easy to view simplified display settings making the purchasing decisions far easier and more convenient (Fig. 1b). The third raw attribute that surfaced from the laddering interviews is depicted by Participant 14 (female, 25 years old), which she depicted as "filling the vessel". An excerpt from the participant goes like this: "The retail hypermarket store makes me feel, how I cater to my various needs with the many products of the hypermarket. You can always rely on them! (Fig. 1c)." The element derived has been consistently playing significant contribution in building consumer's in-store shopping experience contributing to purchase intentions (Terblanche and Kidd 2021). The result is also in line with the studies of Chang and Chen (2021) that suggest that perceived ease of use inside a retail store contributes to having a strong impact on consumers' shopping intentions.

Second core element: sensory cues

The second related theme that has emerged from our findings is Sensory cues. According to the excerpt from Participant 8 (female, 19 years old): "I believe congruent sensory cues create a pleasant cohesive retail buying experience, especially the magic of fragrance makes it a big difference." The results are in line with the studies conducted by De Nisco and Warnaby (2013) which focused on how variables like the desire to stay inside retail shopping outlets impact shopping outcomes both directly and indirectly. Participant 15 (female, 29 years old) excerpt suggests: "Every time I get tempted with the fresh smell of the hot bun and most of the time, do end up buying impulsively." The findings are similar to Elmashhara and Soares (2019) study, which argues on promoting consumer intentions as one of the critical outcomes in the retail context.

Again, the laddering interview conducted on Participant 6 (male, 37 years old) revealed from image 5 that he often gets enticed by the color combination and the sense of fragrance which makes the overall shopping journey worth remembering. Images 7 & 8 are validated by Participant 10 (male, 22 years old). According to him, the right light and color tones add up to the retail shopping experience and his excerpts say, "Adding a refreshing smell do works wonder for me and I tend to overspend time without realizing the same". Participant 2 (male, 24 years old) summarizes how a well-arranged assortment of apparel with the use of spatial formation for ease of traffic and sighting of the clothes creates the right blend of shopping experience. The feeling is in tune with the literature that suggests the right visual aesthetics contribute to consumer satisfaction and encourage positive word-of-mouth (Lloyd et al. 2014). This strongly suggests that visual sensory cues (sight) play an important role in an enhanced shopping experience.

Third core element: mood and feelings

The third theme that emerged is the consumer's mood and feeling inside the retail space while shopping. Interview with Participant 7 (male, 39 years old) justified through the metaphor elicitation technique that often the gloomy lighting conditions and loud music creates a club-like atmosphere which appeals to youngsters like him as the entire ambiance appeals to

be deeper with a tinge of flirting. Participant 5 (male, 21 years old) depicts his feelings through the excerpts: “I associate shopping experience in hypermarkets with a feeling of pleasant surprise when I see something that I have never seen before. This applies especially to clothing and household appliances. This is especially felt when students like me coming from a foreign country get to see collections which are not frequently available in my own country.” Laddering interview with participant 8 (female, 19 years old) suggests the following which is depicted through the excerpts; “I typically feel calm and relaxed while doing grocery shopping in a retail space. It is like spending quality time with myself.”

Fourth core element: memory revisit

The laddering interview with Participant 9 (female, 20 years old) brings out the metaphor of old memories associated with the consumer, and recollecting the same would as a strong brand-building exercise for the retail store. Further, the participant suggested that strolling inside the female clothing area reminds him of his first date with his girlfriend. Participant 12 (female, 31 years old) shared her thoughts on how wondering through a well-organized retail facility does remind her of her carefree childhood life having a feeling of nostalgia. The study result is completely aligned with the research results of Song et al. (2021) which discuss how building nostalgic experiences could trigger consumer’s revisit intentions (Barnes et al. 2016).

Laddering interview with Participant 3 (female, 34 years old) excerpts; “It is like a ‘feel-good’ factor for me every time I walk inside a retail shopping space, not only ensuring ample choice for products but food as well.” The most important excerpt came from participant 13 (male, 36 years old); “When you’re an adult and able to buy what you want, you buy the things you always wanted as a child. This is how I make the child inside me happy and make up for it.”

Discussion

This research, in response to the lack of empirical evidence on thematic consumer experiences in the retail market, focuses mainly on consumers’ perceptions of delightful physical retail shopping

experiences. The research aim was connected with the understanding, of how retail store attributes play a significant role in consumers’ purchase decision-making.

The researchers have found that ZMET is a useful tool that offers a means of bringing the imaginative experience to the fore and eliciting retail attributes from a semi-conscious mind which otherwise would have been difficult to portray, thus uncovering retail consumers’ hidden emotions and experiences. The use of metaphors, visuals, and stories was extremely helpful. The researchers were pleasantly surprised by the number, quality, and richness of the material that was elicited. Several respondents were complimentary about the creative and instructive components of ZMET. Also, they stated that after using the laddering approach, they “felt unburdened,” almost as if they had let all of their ideas out. By bringing to light several previously undocumented experience aspects, particularly visual-based imagery, metaphors, and multi-sensory experiences, ZMET may encourage readers to consider a wider range of characteristics to enhance established consumer purchase decision-making research approaches (Table 3).

The study, thus adopting ZMET as a research tool, adheres to the objective of qualitative research, that is to understand the reason behind people’s reactions to a stimulus or experience (Maxwell 2013), which in turn adds the consumer’s voice to the product or service designing, improvement, and development process. Dubey et al. (2016) discussed how a model for customer delight anticipating key surprise elements such as humor, schema discrepancy & perceived firm expertise could contribute to building customer delight.

Prior research on the retail store shopping experience tended to concentrate on the material aspects of experiences like consumer satisfaction, (Elmashhara and Soares 2022), loyalty, or word of mouth and presume that these were the reasons why customers were satisfied and had plans to visit (Carpenter 2008). Customers’ subjectivities and imaginations are considered vital components of the experience by the current researchers without disregarding such features.

The current study addresses the issue of a lack of scientific research into how features of retail stores affect consumers’ thoughts and feelings, particularly from an embodied semi-conscious standpoint. As too

Table 3 Summarized custom steps of ZMET designed and used for the interview. Source: Christensen and Olson (2002)

Step 1	Sharing the Story	This allowed people to express their experiences. Participants provided eight to ten photos, and each one described how each one related to the environment they experienced at a store
Step 2	Missed images	Participants reviewed themes and images that were missed to pinpoint any pertinent problems for which they couldn't find a picture
Step 3	Sorting task	Participants were asked to group their images into logical groups and give each category a name or description
Step 4	Expanding the frame	The fundamental constructions and the links between them were extracted using the laddering technique. Participants' photographs served as the stimulation
Step 5	Images that best express the subjects' emotions	Participants were asked to select an image that most effectively expressed their sentiments involving their sensory cues
Step 6	Vignette	Participants were asked to create a short fictitious story or film that highlighted the most important aspects of the topic at hand
Step 7	Consensus maps	The researcher created a mental model (a map or a causal model) for each participant. A consensus map was then constructed by combining the mental maps made by each participant

much of the same could result in decreased approach behavior, it is crucial to establish the ideal degree of sensory qualities in a retail environment (Doucé and Adams 2020). Additionally, the current study would give the academic community a deeper knowledge of the cognitive and emotional responses of the retail customer to this type of persuasive communication (Coulter et al. 2001).

The findings have several practical implications. It portrays that consumers appreciate playful in-store retail sensory touch mainly in the form of fragrance (Chatterjee 2015; Chatterjee and Bryla 2022) and music (Vukadin et al. 2018). Also, memory rebuilding and reconnecting through brands appeared to be a winning exercise to regain confidence among consumers during their retail shopping journey. Moreover, retail shopping convenience (Lloyd et al. 2014) came out to be another crucial indicator for a winning consumer shopping experience in a retail setup. Retailers are keen on providing a unique shopping experience that makes shoppers feel satisfied and most likely to recommend their stores. This “feel-good” satisfaction among shoppers in this study is influenced by olfactory cues inside the mall, music, and store convenience along with memory revisit exercises. Fragrance relaxes the mind and soothing music along with color schemes that project positive vibes in the display areas create an upscale environment that the consumers are looking for, which is what retail marketers should aim at.

Limitations

This research is not without limitations, some of which we would say are pointing toward future research opportunities. Despite the study sample being respectful and diversified concerning the distribution of age, it is regional. The study was conducted in the Lodz region of Poland. Honestly, the Lodzkie region people of Poland may be more social, or extreme shoppers, compared to other Polish regions or even shoppers in other countries. Hence, the proposed model could be tested in other regional contexts or by doing cross-cultural studies to compare results from different cultures. Moreover, the studied malls have their unique characteristics, and therefore the results cannot be generalized to other shopping areas such as town centers, shopping streets, or factory-outlet malls.

Again, this study focuses more on shoppers' positive attitudes toward ambiance fragrance, and other sensory cues along with shopping convenience and building a memory revisit window as key drivers for the desire to stay at the shopping mall. However, further research is required to discover other antecedents of this factor. In this vein, we think it may be worthwhile to check the effect of other environmental cues, such as mall location, weather conditions, and social factors on the desire to stay in shopping areas. Finally, the difficulty of interpreting the experimental effects of sensory cues (music, fragrance, temperature, store layout) to obtain a sensory-based outcome (to

like or dislike the sensory cues) through ZMET seems extremely difficult to interpret the causal antecedents. This is a regular limitation in similar research.

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Declarations

Conflict of interest The authors declare no conflict of interest.

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References

- Ainsworth J, Foster J (2017) Comfort in brick and mortar shopping experiences: examining antecedents and consequences of comfortable retail experiences. *J Retail Consum Serv* 35:27–35. <https://doi.org/10.1016/j.jretconser.2016.11.005>
- Baker J, Grewal D, Parasuraman A (1994) The influence of store environment on quality inferences and store image. *J Acad Mark Sci* 22(4):328–339. <https://doi.org/10.1177/0092070394224002>
- Babin BJ, Attaway JS (2000) Atmospheric affect as a tool for creating value and gaining share of customer. *J Bus Res* 49(2):91–99. [https://doi.org/10.1016/S0148-2963\(99\)00011-9](https://doi.org/10.1016/S0148-2963(99)00011-9)
- Babin BJ, Darden WR (1996) Good and bad shopping vibes: spending and patronage satisfaction. *J Bus Res* 35:201–206. [https://doi.org/10.1016/0148-2963\(95\)00125-5](https://doi.org/10.1016/0148-2963(95)00125-5)
- Barnes SJ, Mattsson J, Sørensen F (2016) Remembered experiences and revisit intentions: a longitudinal study of safari park visitors. *Tour Manag* 57:286–294. <https://doi.org/10.1016/j.tourman.2016.06.014>
- Bellizzi JA, Crowley AE, Hasty RW (1983) The effects of color in store design. *J Retail* 59(1):21–45
- Biswas D, Labrecque LI, Lehmann DR, Markos E (2014) Making choices while smelling, tasting, and listening: the role of sensory (Dis) similarity when sequentially sampling products. *J Mark* 78(1):112–126. <https://doi.org/10.1509/jm.12.0325>
- Bosmans A (2006) Scents and sensibility: when do (in) congruent ambient scents influence product evaluations? *J Mark* 70(3):32–43. <https://doi.org/10.1509/jmkg.70.3.032>
- Burlison J, Oe H (2018) A discussion framework of store image and patronage: a literature review. *Int J Retail Distrib Manag* 46(7):705–724. <https://doi.org/10.1108/IJRDM-11-2017-0275>
- Carpenter JM (2008) Consumer shopping value, satisfaction and loyalty in discount retailing. *J Retail Consum Serv* 15(5):358–363. <https://doi.org/10.1016/j.jretconser.2007.08.003>
- Chang YW, Chen J (2021) What motivates customers to shop in smart shops? The impacts of smart technology and technology readiness. *J Retail Consum Serv* 58:102325. <https://doi.org/10.1016/j.jretconser.2020.102325>
- Chatterjee S (2015) Olfactory branding: a new trend for defining brands through smell—a case of ITC Sonar Hotel in Kolkata, India. *Int J Trade Global Mark* 8(3):196–206. <https://doi.org/10.1504/IJTG.2015.071603>
- Chatterjee S, Bryla P (2022) Innovation and trends in olfactory marketing: a review of the literature. *J Econ Manag* 44(1):210–235. <https://doi.org/10.22367/jem.2022.44.09>
- Chatterjee S, Pandey M (2019) Consumer satisfaction attribute mapping in hospitality industry through ZMET. *Int J Bus Innov Res* 20(1):87–105. <https://doi.org/10.1504/IJBIR.2019.101691>
- Chebat JC, Michon R (2003) Impact of ambient odors on mall shoppers' emotions, cognition, and spending: a test of competitive causal theories. *J Bus Res* 56(7):529–539. [https://doi.org/10.1016/S0148-2963\(01\)00247-8](https://doi.org/10.1016/S0148-2963(01)00247-8)
- Chebat JC, Morrin M (2007) Colors and cultures: exploring the effects of mall decor on consumer perceptions. *J Bus Res* 60:189–196. <https://doi.org/10.1016/j.jbusres.2006.11.003>
- Chebat JC, Morrin M, Chebat DR (2009) Does age attenuate the impact of pleasant ambient scent on consumer response? *Environ Behav* 41(2):258–267. <https://doi.org/10.1177/0013916507311792>
- Christensen GL, Olson JC (2002) Mapping consumers' mental models with ZMET. *Psychol Mark* 19(6):477–501. <https://doi.org/10.1002/mar.10021>
- Coulter RA, Zaltman G, Coulter KS (2001) Interpreting consumer perceptions of advertising: an application of the Zaltman Metaphor Elicitation Technique. *J Advert* 30(4):1–21. <https://doi.org/10.1080/00913367.2001.10673648>
- Crowley AE (1993) The two-dimensional impact of color on shopping. *Mark Lett* 4(1):59–69. <https://doi.org/10.1007/BF00994188>
- Custers PJ, De Kort YAW, Ijsselstein WA, De Kruiff ME (2010) Lighting in retail environments: atmosphere perception in the real world. *Light Res Technol* 42(3):331–343. <https://doi.org/10.1177/1477153510377836>
- Davis LY (2013) Let us go shopping: exploring Northwest Chinese consumers' shopping experiences. *Int J Consum Stud* 37:353–359. <https://doi.org/10.1111/j.1470-6431.2012.01095.x>

- De Nisco A, Warnaby G (2013) Shopping in downtown: the effect of urban environment on service quality perception and behavioural intentions. *Int J Retail Distrib Manag* 41(9):654–670. <https://doi.org/10.1108/IJRDM-05-2013-0106>
- Dion D, Borraz S (2017) Managing status: How luxury brands shape class subjectivities in the service encounter. *J Mark* 81(5):67–85. <https://doi.org/10.1509/jm.15.0291>
- Donovan RJ, Rossiter JR, Marcolyn G, Nesdale A (1994) Store atmosphere and purchasing behavior. *J Retail* 70(3):283–294. [https://doi.org/10.1016/0022-4359\(94\)90037-X](https://doi.org/10.1016/0022-4359(94)90037-X)
- Doucé L, Adams C (2020) Sensory overload in a shopping environment: not every sensory modality leads to too much stimulation. *J Retail Consum Serv* 57:102154. <https://doi.org/10.1016/j.jretconser.2020.102154>
- Doucé L, Janssens W (2013) The presence of a pleasant ambient scent in a fashion store: the moderating role of shopping motivation and affect intensity. *Environ Behav* 45(2):215–238. <https://doi.org/10.1177/0013916511410421>
- Dubey P, Bajpai N, Guha S (2016) Mapping customer delight by using a surprise model. *Indian J Mark*. 46(10):22–39. <https://doi.org/10.17010/ijom/2016/v46/i10/102852>
- El Hedhli K, Zourrig H, Chebat JC (2016) Shopping well-being: is it just a matter of pleasure or doing the task? The role of shopper's gender and self-congruity. *J Retail Consum Serv* 31:1–13. <https://doi.org/10.1016/j.jretconser.2016.03.002>
- Elmashhara MG, Soares AM (2019) The impact of entertainment and social interaction with salespeople on mall shopper satisfaction: the mediating role of emotional states. *Int J Retail Distrib Manag* 47(2):94–110. <https://doi.org/10.1108/IJRDM-06-2018-0112>
- Elmashhara MG, Soares AM (2022) Linking atmospherics to shopping outcomes: The role of the desire to stay. *J Retail Consum Serv* 64:102744. <https://doi.org/10.1016/j.jretconser.2021.102744>
- Francioni B, Savelli E, Cioppi M (2018) Store satisfaction and store loyalty: The moderating role of store atmosphere. *J Retail Consum Serv* 43:333–341. <https://doi.org/10.1016/j.jretconser.2018.05.005>
- Grewal D, Baker J, Levy M, Voss GB (2003) The effects of wait expectations and store atmosphere evaluations on patronage intentions in service-intensive retail stores. *J Retail* 79(4):259–268. <https://doi.org/10.1016/j.jretai.2003.09.006>
- Guéguen N, Petr C (2006) Odors and consumer behavior in a restaurant. *Int J Hosp Manag* 25(2):335–339. <https://doi.org/10.1016/j.ijhm.2005.04.007>
- Haberland MF (2010) The power of scent: Empirical field studies of olfactory cues on purchase behavior, Doctoral dissertation. University of St. Gallen, St. Gallen
- Ha J, Jang S (2013) Attributes, consequences, and consumer values: a means-end chain approach across restaurant segments. *Int J Contemp Hosp Manag* 25(3):383–409. <https://doi.org/10.1108/0959611311311035>
- Herz RS (2010) The emotional, cognitive and biological basics of olfaction. In: *Sensory marketing: research on the sensuality of products*. Routledge, pp 87–107
- Hul MK, Dube L, Chebat JC (1997) The impact of music on consumers' reactions to waiting for services. *J Retail* 73(1):87–104. [https://doi.org/10.1016/S0022-4359\(97\)90016-6](https://doi.org/10.1016/S0022-4359(97)90016-6)
- Ji M, King B (2018) Explaining the embodied hospitality experience with ZMET. *Int J Contemp Hosp Manag* 30(11):3442–3461. <https://doi.org/10.1108/IJCHM-10-2017-0709>
- Jung J, Yu J, Seo Y, Ko E (2021) Consumer experiences of virtual reality: insights from VR luxury brand fashion shows. *J Bus Res* 130:517–524. <https://doi.org/10.1016/j.jbusres.2019.10.038>
- Kauppinen-Räisänen H, Mühlbacher H, Taishoff M (2020a) Exploring consumers' subjective shopping experiences in directly operated luxury brand stores. *J Retail Consum Serv* 57:102251. <https://doi.org/10.1016/j.jretconser.2020.102251>
- Lee NY, Noble SM, Biswas D (2018) Hey big spender! A golden (color) atmospheric effect on tipping behavior. *J Acad Mark Sci* 46(2):317–337. <https://doi.org/10.1007/s11747-016-0508-3>
- Lloyd AE, Chan RY, Yip LS, Chan A (2014) Time buying and time saving: effects on service convenience and the shopping experience at the mall. *J Serv Mark* 28(1):36–49. <https://doi.org/10.1108/JSM-03-2012-0065>
- Maxwell JA (2013) *Qualitative research design—an interactive approach*. SAGE Publications, LA
- Mattila AS, Wirtz J (2001) Congruency of scent and music as a driver of in-store evaluations and behavior. *J Retail* 77(2):273–289. [https://doi.org/10.1016/S0022-4359\(01\)00042-2](https://doi.org/10.1016/S0022-4359(01)00042-2)
- Mehrabian A, Russell JA (1974) *An approach to environmental psychology*. The MIT Press
- Mitchell DJ, Kahn BE, Knasko SC (1995) There's something in the air: Effects of congruent or incongruent ambient odor on consumer decision making. *J Consum Res* 22(2):229–238. <https://doi.org/10.1086/209447>
- Morrin M, Chebat JC (2005) Person-place congruency: the interactive effects of shopper style and atmospherics on consumer expenditures. *J Serv Res* 8(2):181–191. <https://doi.org/10.1177/1094670505279420>
- Pan Y, Zinkhan GM (2006) Determinants of retail patronage: a meta-analytical perspective. *J Retail* 82(3):229–243. <https://doi.org/10.1016/j.jretai.2005.11.008>
- Patton MQ (2002) *Qualitative research & evaluation methods*. Sage, CA
- Pink DH (1998) *Metaphor marketing*. Fast Company 14(5):214–219
- Quartier K, Vanrie J, Van Cleempoel K (2014) As real as it gets: what role does lighting have on consumer's perception of atmosphere, emotions and behaviour? *J Environ Psychol* 39:32–39. <https://doi.org/10.1016/j.jenvp.2014.04.005>
- Rodgers W, Yeung F, Odindo C, Degbey WY (2021) Artificial intelligence-driven music biometrics influencing customers' retail buying behavior. *J Bus Res* 126:401–414. <https://doi.org/10.1016/j.jbusres.2020.12.039>
- Roggeveen AL, Grewal D, Schweiger EB (2020) The DAST framework for retail atmospherics: the impact of in-and out-of-store retail journey touchpoints on the customer experience. *J Retail* 96(1):128–137. <https://doi.org/10.1016/j.jretai.2019.11.002>
- Song H, Xu JB, Kim JH (2021) Nostalgic experiences in time-honored restaurants: antecedents and outcomes. *Int J Hosp*

- Manag 99:103080. <https://doi.org/10.1016/j.ijhm.2021.103080>
- Spangenberg ER, Sprott DE, Grohmann B, Tracy DL (2006) Gender-congruent ambient scent influences on approach and avoidance behaviors in a retail store. *J Bus Res* 59(12):1281–1287. <https://doi.org/10.1016/j.jbusres.2006.08.006>
- Spence C (2007) Audiovisual multisensory integration. In: *Acoustical science and technology*, vol 28(2), pp 61–70. <https://doi.org/10.1250/ast.28.61>
- Terblanche NS (2018) Revisiting the supermarket in-store customer shopping experience. *J Retail Consum Serv* 40:48–59. <https://doi.org/10.1016/j.jretconser.2017.09.004>
- Terblanche NS, Kidd M (2021) Exploring an in-store customer journey for customers shopping for outdoor apparel. *J Retail Consum Serv* 63:102722. <https://doi.org/10.1016/j.jretconser.2021.102722>
- Turley LW, Chebat JC (2002) Linking retail strategy, atmospheric design and shopping behaviour. *J Mark Manag* 18(1–2):125–144. <https://doi.org/10.1362/0267257022775891>
- Turley LW, Milliman RE (2000) Atmospheric effects on shopping behavior: a review of the experimental evidence. *J Bus Res* 49(2):193–211. [https://doi.org/10.1016/S0148-2963\(99\)00010-7](https://doi.org/10.1016/S0148-2963(99)00010-7)
- Van Rompay TJ, Tanja-Dijkstra K, Verhoeven JW, van Es AF (2012) On store design and consumer motivation: Spatial control and arousal in the retail context. *Environ Behavior* 44(6):800–820. <https://doi.org/10.1177/0013916511407309>
- Vukadin A, Wongkitrungrueng A, Assarut N (2018) When art meets mall: impact on shopper responses. *J Product Brand Manag* 27(3):277–293. <https://doi.org/10.1108/JPBM-01-2017-1406>
- Wu CH, Chen TC (2012) Understanding e-learning system usage behavior: an evolutionary psychology perspective. *Procedia Soc Behav Sci* 64:362–371. <https://doi.org/10.1016/j.sbspro.2012.11.043>
- Zaltman G, Zaltman LH (2008) *Marketing metaphoria: what deep metaphors reveal about the minds of consumers*. Harvard Business Press, Boston
- Zaltman G, Olson J, Forr J (2015) Toward a new marketing science for hospitality managers. *Cornell Hosp Q* 56(4):337–344. <https://doi.org/10.1177/1938965515599841>

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