Experiencing the sense of the brand: the mining, processing and application of brand data through sensory brand experiences

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Abstract

Purpose – This paper aims to develop an integrative framework based on a convergence of embodiment, ecological and phenomenological theoretical perspectives to explain the multiple processes involved in the consumers' mining, processing and application of brand-related sensory data through a sensory brand experience (SBE).

Design/methodology/approach – This research adopts a qualitative method by using face-to-face in-depth interviews (retail managers and customers) and focus group interviews (actual customers) with 34 respondents to investigate SBEs in the context of Chinese shopping malls.

Findings – Results show that the brand data mined through multisensory cues (visual, auditory, olfactory, tactile and taste) in a brand setting are processed internally as SBEs (involving sensory impressions, fun, interesting, extraordinary, comforting, caring, innovative, pleasant, appealing and convenient), which influence key variables in customer–brand relationships including customer satisfaction, brand attachment and customer lovemarks.

Originality/value – This study has implications for current theory on experiential marketing, branding, consumer–brand relationships, consumer psychology and customer experience management.

Keywords Sensory Brand experience, Consumer–Brand relationships, Sensory marketing, Experiential marketing, Brand setting

Paper type Research paper

Introduction

Understanding sensory brand experience (SBE) is fundamental to successful brand management as well as to scholars, as a superior sensory experience is crucial for brands to engage customers, forging meaningful consumer–brand relationships and increasing brand competitiveness (Elder and Krishna, 2021; Roggeveen *et al.*, 2021). Euromonitor International (2021) states that over half of global consumers shop in stores that have engaging sensory experiences. The highly influential Kantar (2021) annual marketing review concluded that a superior experience is key to developing a relationship between a brand and its customers. Therefore, gaining clarity on the nature of SBE to create a positive sensory experience has never been more important.

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Yet, although the notion of SBE has gained increased attention in marketing and consumer research, this construct remains under-theorized and poorly conceptualised. Almost all extant research adopted Brakus *et al.*'s (2009) seminal article on the brand experience, where SBE is conceived as a sub-construct. Within the brand experience model, SBE is still an undifferentiated and thinly constructed concept, where distinguishing features pertinent to the concept remain unexplained. Moreover, each stage of the SBE phenomenon has been separately investigated as a discrete segment in past research, and an end-to-end conceptualisation of SBE viewing the construct as a series of linked processes remains unexplored. Indeed, research has shown that SBE is a hybrid concept and requires a multi-paradigmatic approach (Zha *et al.*, 2021a). For example, regarding sensory marketing, Krishna and Schwarz (2014) highlighted the role of SBE to appeal to customers' senses subconsciously from an embodiment perspective. Regarding atmospheric literature, however, Roggeveen *et al.* (2020) consider SBE to be the interaction of customers with its environmental stimuli in a retail setting from an ecological perspective, while branding research largely focusses on the role of consumer subjectivities and brand meaning in an SBE from existential-phenomenology perspectives (Grace, 2021). Accordingly, there is a lack of research that integrates the different approaches of SBE, one that can reinforce the unique characteristics of the SBE phenomenon, including its nature and its multiple processes as a stand-alone concept.

Furthermore, while the extant research (Roggeveen *et al.*, 2020; Spence *et al.*, 2014) has contributed a great deal of insight into the relationship between the five sensory cues and SBE on a cue-by-cue basis, there is still no research available for understanding brand stimulation from a *setting* perspective. According to Zha *et al.* (2021a), there should be more research on how multisensory cues function in a brand environment from a setting perspective, enabling a memorable SBE to be created. On the other hand, researchers (Hirschman and Holbrook, 1982; Zha *et al.*, 2020) identified the internal processes of SBE, including the entrainment of exteroceptive (customer sensation evoked by external brand-related stimuli) and interoceptive processes (a body–mind process that evokes customers' feeling states and affects), that can characterise the meaning of a brand for customers. However, past research differed in its scope and did not study both the internal processes of SBE, resulting in an incomplete picture of the nature of SBE (Zha *et al.*, 2021a). Finally, the constructs of customer satisfaction, brand attachment and customer lovemarks have been considered as key applications of SBE in the marketing literature, but little is known about the impact of SBE on the dimensions of those constructs, resulting in a lack of understanding of the sensorial properties linking the key consumer–brand relationships.

To fill this gap, this study aims to develop a framework based on a convergence of embodiment, ecological and phenomenological perspectives to explain consumers' mining, internal processing and application of brand-related sensory data through SBE, which extant research has not achieved sufficient depth to provide a sound foundation for designing an integrative framework. Three questions guide our efforts:

Q1. What key elements of multisensory cues can influence a positive SBE in a brand setting?

Q2. What are the main brand-based feeling states associated with the SBE internal process?

Q3. What are the key outcomes of SBE recognising the role of SBE in the application of brand data?

This research makes several contributions to consumer research on branding strategies. First, it offers a framework that directly responds to calls for research (Zha *et al.*, 2020; Zha *et al.*, 2021a), encompassing an end-to-end conceptualisation of the multiple processes underpinning the SBE phenomenon. Second, it extends previous research in SBE-related study, proposing a multi-paradigmatic approach based on three key theoretical perspectives: embodiment (Lakoff and Johnson, 2020), ecological (Borghini *et al.*, 2020) and phenomenological (Grace, 2021), which enrich our understanding of a compound concept like SBE. Third, it contributes to the growing body of research on SBE by alerting firms to the efficacy of sensory-based engagement with customers. By incorporating research on three key outcomes, customer satisfaction (Dash *et al.*, 2021), brand attachment (Park *et al.*, 2010) and customer lovemarks (Roberts, 2005), the study provides a more coherent and rounded articulation of the consequential impact of SBE on key consumer–brand relationship variables.

This study is structured as follows. It starts with the theoretical perspectives of SBE, as well as its relationship with the five sensory cues and how it shapes customer satisfaction, brand attachment and customer lovemarks. Following this, we clarify the research methods. Next, we propose a SBE framework based on the findings of the qualitative study and the literature. Finally, the implications and limitations are discussed, along with suggestions for future research.

Theoretical foundation

Concept of sensory brand experience

In the marketing literature, the concept of SBE has a nascent history, but its development began when Kotler (1974) discussed the sensory experience in in-store atmospherics, describing it as the customer's pleasure and arousal experiences evoked by environmental stimuli. Over the past four decades, more research has explored SBE, which is key to marketing strategy and brand management (Hultén, 2011; Roggeveen *et al.*, 2020). It was Brakus *et al.* (2009) who first conceptualised and operationalised SBE as one dimension of brand experience with implications for customer satisfaction and loyalty, but since then, only a limited number of articles have attempted to conceptualise SBE as a stand-alone construct; the most prominent among them is the paper on multi-SBE by Hultén (2011). The construct was then refined by other scholars such as Iglesias *et al.* (2019) and Hwang *et al.* (2021), where SBE is further operationalised within the brand equity framework. Most recently, Zha *et al.* (2021a) have argued that SBE needs to be extended to incorporate its unique features as a stand-alone concept; therefore, they refer to SBE as "the internal processing of brand data from a brand setting via an entrainment of exteroceptive and interoceptive processes" (*p* 2).

A review of SBE-related topics in marketing management literature shows that SBE consists of a large body of research streams such as hedonic consumption experience, sensory marketing, experiential marketing and atmospherics; these research domains can be agglomerated into three main theoretical perspectives – ecological, embodiment and phenomenological. Each perspective provides different research ideas and approaches, but conventionally, these have been studied independently in past research. Using an ecological approach, consumer environment studies have been able to provide a view into how the sensory elements encoded as *atmospherics* in an environment have a significant influence on consumer responses (Roggeveen *et al.*, 2020; Vadakkepatt *et al.*, 2021). In addition to the ecological approach, the embodied approach underpinning sensory marketing studies throws light on the internal psychological processes underlying SBE. These processes are largely subconscious and precognitive but have a significant influence on consumer

behaviour (Biswas *et al.*, 2021; Hauser and Schwarz, 2021; Johnson and Rohrer, 2021), while the phenomenological approach underpinning experiential marketing helps researchers to understand the transfer of meaning in SBE (Batra, 2019; Zha *et al.*, 2020). In this view, consumers are not looking for sensory cues *per se* – whether the texture of the sofa is superior to another or the high-fidelity quality of the background music. Consumers are actively mining sensory data to make sense of brand events – whether they are affectively meaningful and should be remembered as fulfilling experiences. The memories of these feeling states form the basis of brand relationship variables such as customer satisfaction, brand attachment and customer lovemarks.

A review of the three key theoretical perspectives of SBE shows that the SBE construct is multi-paradigmatic in scope. In this regard, there is a need to bridge ecological, embodiment and phenomenological perspectives to explain the multiple processes involved in the consumers' mining (ecological approach), processing (embodiment approach) and application (phenomenological approach) of brand-related sensory data through a SBE. The following sections deals with each of these processes.

Mining, processing and application of sensory data

We now discuss how consumer mining and internal processing of multisensory cues in a brand setting impact consumer–brand relationships – customer satisfaction, brand attachment and customer lovemarks (application). A definition of the key concepts is shown in Table 1.

Brand setting and sensory brand experience. In a brand setting, the visual modality represents the most important prime mining tool, because it has a higher capacity to simultaneously mine inputs from multiple sources to offer a coherent representation of the external environment (Bashirzadeh *et al.*, 2021; Biliciler *et al.*, 2021). With a simple glance, the visual modality can mine sensory information pertaining to aesthetic, social and functional elements. Researchers suggest 70% of human cognition is derived from visual modality (Sample *et al.*, 2020; Stillman *et al.*, 2020). While auditory stimulation has an explicit function acting as a trigger for brand recall (Biswas, 2016), it has another important implicit mining function. Auditory modality is important as a threat detection tool because, unlike vision, it is not constrained by limits of visual span. Brand settings that can create a soundscape to simulate a threat-free and relaxed state are highly desirable.

Furthermore, the processing of olfactory signals occurs for the most part in the more primitive areas of the brain where the automation of behaviour requires fewer cognitive resources (Roschk and Hosseinpour, 2020). A positive olfaction serves two key purposes – the priming of hedonic states and the priming of brand recall or information retrieval. Studies have found a privileged neural link between sections of the olfactory neural system and sensorial cortices of the brain linked to emotional memory (Biswas *et al.*, 2021; Krishna and Elder, 2021). This connection predisposes the triggering of emotive memories and responses to olfaction signals, resulting in the accentuation of a priming effect (De Luca and Botelho, 2021).

Additionally, tactile cues provide a direct physical connection to the customer, bringing a sense of tangibility to the overall SBE in a brand setting. Research has established the link between product evaluation and the need for touch (Luangrath *et al.*, 2020; Peck *et al.*, 2021). It has been shown that allowing the consumer to touch a product increases the consumer/ product interactivity capacity and therefore increases the likelihood of purchase (Jha *et al.*, 2019). By extending the scope of the tactile response beyond the haptic mode, which, strictly speaking, refers only to the data harvested through sensory receptors imbedded in the hand, researchers are now conceptualising a tactile modality that involves receptors imbedded

Construct	Definitions		Major references
Sensory brand experience	An internal processing of brand-related stimuli from a brand setting through external and internal processes, engaging the individual sensation, affects and feeling states, affecting judgment and behaviour to support purchase and consumption processes		Iglesias *et al.* (2019). Krishna (2012); Zha *et al.* (2021a)
Visual cues	Visual-related cues including functional, aesthetic and social elements, which are used by companies to affect consumer behaviour and enhance the likelihood of purchase		Biswas *et al.* (2021), Roggeveen *et al.* (2020); Sample *et al.* (2020)
Auditory cues	Sound-related cues, including the hearing and listening stimuli present in brand settings realised in the context of music, words or voices and ambient background sounds, that have an undeniable effect on consumers' mood, evaluation and behavioural and emotional responses		Bartholmé and Melewar (2016); Biswas *et al.* (2019), Reynolds-McIlnay and Morrin (2019)
Olfactory cues	Smell-related cues, including ambient scent, signature brand scent and product scent, that can attract attention, priming of affective states and brand recall		Biswas *et al.* (2021), De Luca and Botelho (2021); Roschk and Hosseinpour (2020)
Tactile cues	Touch-related cues, including the material of objects, surface temperature, weight, sturdiness and physical contact with the skin, that can increase the likelihood of purchase		Ackerman *et al.* (2010), Jha *et al.* (2019); Luangrath *et al.* (2020), Peck *et al.* (2021)
Taste cues	Taste-related product cues including food-sampling and food-related products; taste can include five different types of elements that the sensory modality can evaluate, i.e. sweet, salty, bitter, sour and umami		Elder and Krishna (2021), Hoegg and Alba (2007); Krishna (2012), Spence *et al.* (2014)
Customer satisfaction	The post-consumption evaluation that meets the customer's expectations; also an emotional outcome from a customer's experience, including affective and cognitive satisfaction		Foroudi (2020), Hult *et al.* (2019); Wolter *et al.* (2019)
	Affective	A consumer's affective expectations derived from a consumption experience related to products or services	
	Cognitive	A consumer's cognitive development of the level of the consumption experience related to products or services	
Brand attachment	Brand attachment is the emotional bond between consumers and brands, including the brand–self connection and brand prominence		Dolbec and Chebat (2013), Japutra *et al.* (2018); Park *et al.* (2010)
	Brand–self connection	The strong emotional bonds between consumer and brand as the consumer views a brand as part of themselves	
	Brand prominence	Developed over repeated experiences of brand–self connection that become an automatic positive feeling towards a brand	
Customer lovemarks	A customer's deep emotional connection towards a brand including brand love and brand respect		Batra *et al.* (2012), Bagozzi *et al.* (2017); Cho *et al.* (2018), Roberts (2005)
	Brand love	A strong emotional bond that consumers have for a specific brand; these deep emotions reflect the consumer's thinking and beliefs	
	Brand respect	A consumer's high regard for a brand and its attributes based on positive brand experiences	

Table 1.
Definitions for the key research constructs

throughout the largest sensory organ of the human body – the skin (Sinha and Bagchi, 2019). From this perspective, touch can be everything from the feel of softness or hardness, the sense of heaviness or lightness, which is captured by receptors embedded in our muscles, to sensing the temperature changes of the external environment.

Finally, experiences that require the use of taste, such as food sampling or food and beverage patronage, are also implicated in interoceptive processes (Biswas *et al.*, 2021). Taste modality is unique because its efficacy depends on a whole range of parallel stimulation. When something is sensed as tasty, it is not just the sensations generated by receptors embedded in the tongue that are providing the information; receptors representing different modalities are also involved (Elder and Krishna, 2021; Krishna and Elder, 2021; Schlosser, 2015). Spence and Van Doorn (2017) highlighted the significance of this mouth/mind relationship by reminding us that the pleasures of the table reside in the mind rather than the mouth, while Roggeveen *et al.* (2020) have argued that taste sensory cues are a key element of the trialability factor and consumer-perceived brand information after their taste sampling experience. Based on the above observation, we therefore propose that the consumers' mining of the multisensory cues in a brand setting influences their internal processing of SBE.

Sensory brand experience and consumer–brand relationships. Most scholars commonly agree that consumer–brand relationships are a key application of SBE (De Luca and Botelho, 2021; Foroudi, 2020). The influence of SBE in determining the customer satisfaction outcome is drawing increasing attention from researchers (Foroudi *et al.*, 2020; Wolter *et al.*, 2019; Hult *et al.*, 2019). According to Zha *et al.* (2021b), the processing of affective satisfaction correlates with the SBE process where external sensory stimuli (S) evoke body/mind processing at the organismic level (O), resulting in the generation of brand-induced feeling states (R). These feeling states are highly disruptive in that they have the capacity to override cognitive evaluative processes to bias the overall satisfaction with a brand. Similarly, the influence of sensorial meanings in shaping the brand attachment phenomenon is also gathering pace. The multidimensionality of the brand attachment construct – one that includes both highly affective components such as brand–self connection and brand prominence – is now widely recognised by marketing scholars (Dolbec and Chebat, 2013; Japutra *et al.*, 2018; Park *et al.*, 2010). Williams and Poehlman (2017) also argue for a metaphoric relationship between sensory experience and personality perception, referring to metaphors as a shared linguistic descriptor, and individuals use metaphors that relate to their experiences to discuss abstract conceptual knowledge. Thus, customer satisfaction and brand attachment are key applications of SBE.

Roberts (2005) first introduced the customer lovemarks theory and suggested that a company must learn how to create lovemarks to build brand loyalty. Customer lovemarks can be defined as a customer's deep emotional connection towards a brand, including a high degree of brand love and brand respect. Brand love is related to positive evaluations of a brand that can create a positive brand image in a consumer's mind, which becomes a positive memory or experience related to a brand, while brand respect refers to a consumer's high regard for a brand and its attributes based on positive brand experiences (Keller, 2003). To create a lovemark for a customer, Cho *et al.* (2018) suggest brands must consider three components of brand experience: mystery, sensuality and intimacy. SBE can influence both pleasure and arousal, which align with the emotional experience of brand love (De Luca and Botelho, 2021; Reynolds-McIlnay *et al.*, 2017; Knoeferle *et al.*, 2017). Thus, SBE is considered as a key factor influencing brand love and respect.

Method

Research contexts

To achieve the objectives of this study, we investigated one of the most popular Chinese mall brands that provides positive SBEs: The MixC Mall. The MixC Mall is a luxury mall launched by China Resources in 2012, touted as the first national five-star shopping mall and focusses on experiential shopping. Furthermore, the MixC Mall is listed in the top 20 shopping malls in China and reported positive sales revenue in 2017, with some achieving double-digit sales growth (South China Morning Post, 2021). In recent years, in response to changing consumption patterns, the MixC Mall has adopted a more experience-centric model to connect with customers emotionally and has devoted significant resources to improving the mall's sensory experience environment in areas such as in-mall facilities, layout, renovations, asset enhancement programmes and interactive features (e.g. entertainment, leisure activities and food options).

Sample and data collection

We applied a qualitative method as it is the most appropriate because the current literature indicates the SBE phenomenon is not well understood, which requires more in-depth research. This research uses focus groups and in-depth interviews. Researchers (Foroudi *et al.*, 2021; Maxwell, 2008) have found that this approach is helpful because the findings derived from the focus groups and in-depth interviews usually generate additional data over and above what is available from the literature review (Malhotra and Birks, 2000). Moreover, using different methods to collect data meets the requirement of data triangulation and improves the validity of the findings (Akarsu *et al.*, 2020; Foroudi *et al.*, 2014; Hussain *et al.*, 2020).

The first author collected the face-to-face and semi-structured data with 34 participants in China between February 2019 and January 2020. The qualitative data was conducted by using both in-depth interviews with ten key informants (managers and customers) and four focus-group interviews consisting of 24 participants with shopping mall customers in China. Previous researchers (Neuman, 2014; Foroudi *et al.*, 2021) have suggested that when using a small sample format, this number is an optimal size. The value of qualitative samples is based on the quality of data provided by informants, which are reflective of the views of the wider sample (Jackson and Bazeley, 2019). The dual involvement of both mall managers and mall consumers was considered appropriate, as the combined perspective added value to the study via their relevancy, knowledge, expertise and usage influence in the purchasing cycle.

An interview guide was designed based on the existing literature, definitions of the constructs and with the help of experts. Manager interviews began with general questions about the sensory experience strategy in the shopping mall, followed by more direct questions linked to the studied constructs, while customer interviews started with their past positive shopping experience in a mall. The guide was pre-tested for its relevance to the research questions and reader accessibility.

In-depth sampling. A purposive sampling, which is a non-random sampling method, that was applied to select the in-depth interviewees ensured that the managerial participants had sufficient mall management and design experience and the consumer participants were regular Chinese mall patrons. Manager interviews were collected in China between February and March 2019 by contacting 46 salespersons in the MixC Mall. After informing them about the purpose of the study, requests for recommendations of suitable persons to reach out to were made; three managers agreed to the interview (duty, store and marketing managers); ages ranged from 39 to 53 years, and all three were female, yielding a response rate of 33% (3/9). For customer interviews, the first author made daily visits to the MixC Mall between December 2019 and January 2020 and approached 36 customers in total, seeking their consent to participate in the interview. Out of these, seven customers agreed,

yielding a response rate of 19% (7/36). These participants' ages ranged from 21 to 48 years and gender included female (5) and male (2). The profile of customer participants shows diverse backgrounds, including students (PhD, undergraduate and Master levels), managers (customer service and business) and employees (teacher and worker). All of them indicated that they frequent their favourite mall more than once per month. Manager interviews of this study lasted between 60 and 90 min, and customer interviews lasted between 50 and 60 min. The details of the in-depth interviews are shown in Table 2.

Focus groups sampling. Based on snowball sampling and the first author's social networking, we set up four face-to-face focus groups in China with six participants in each group, a total of 24 informants (17 female and 7 male), which lasted between 60 and 90 min. The respondents shared the same cultural background as Chinese consumers and lived in large cities in China, ensuring that they have common ideas, interests and experiences. However, the focus groups also benefitted from the diversity of participants' backgrounds, which allowed the researcher to expand on the understanding of the phenomenon. The four focus groups consisted of the following: university students aged between 23 and 25, a retail employee group aged between 25 and 35 and two mixed groups. The details of the focus group interviews are shown in Table 3.

Trustworthiness assessment and data analysis
To assess the qualitative data and improve the trustworthiness of the results, triangulation was applied in two steps based on Creswell and Miller's (2000) recommendations. In the first

Interview date	Organisation	Interview position	Interview approx. duration
Retail managers			
21.02.2019	The MixC Mall	Duty manager	60 min
26.02.2019	The MixC Mall	Store manager	90 min
12.03.2019	The MixC Mall	Marketing manager	75 min
Topics discussed with managers			
To understand SBE			
The factors that influence SBE			
Their experience of what they understand by SBE and its influence on brand loyalty			
Discussion of visual, auditory, olfactory, tactile and taste sensory cues in retail setting			
The main perceived impacts of SBE			
Consumers			
24.12.2019	48/regular two times per month/female	Manufacturing employee	50 min
30.12.2019	31/regular two–three times per month/female	Customer service manager	50 min
31.12.2019	32/regular one–two times per month/female	Banker	60 min
03.01.2020	25/regular two–three times per month/female	Graduate	60 min
07.01.2020	21/regular one–two times per month/male	Undergraduate student	50 min
08.01.2020	26/regular two times per month/male	Teacher	60 min
08.01.2020	28/regular one–two times per month/male	PhD candidate	60 min
Topic discussed with consumers			
General information about different SBEs in shopping malls			
Impression of what they understand about SBE and brand loyalty			
The impact of SBE on their mind			
Discussion of the name of visual, auditory, tactile, olfactory and taste cues			
Discussion of the most influential sensory cues for them			
The influence of SBE on customer satisfaction, brand attachment and customer lovemarks			

Table 2.
Details of in-depth interviews with customers and managers (total ten)

Interview date	No. of participants	Interviewee occupation	Location	Age range	Interview approx. length
20.02.2019	6	R1: Event manager R2: Graphic designer R3: Teacher R4: Banker R5: Project manager R6: Entrepreneur	China	35–55	90 min
25.02.2019	6	Retail employee	China	25–35	83 min
01.03.2019	6	Masters student	China	25–29	60 min
02.03.2019	6	R1: Tech employee R2: Homemaker R3: Homemaker R4: Property staff R5: Store designer R6: Homemaker	China	25–37	62 min

Topics discussed
Understanding of SBE
General information about different SBEs in shopping malls
Impression of what they understand about SBE and brand loyalty
The impact of SBE on the consumers' mind
Discussion of the name of visual, auditory, tactile, taste and olfactory sensory cues
Discussion of the most influential sensory cues for them
The influence of SBE on customer lovemarks
The influence of SBE on customer satisfaction
The influence of SBE on brand attachment
The elements of SBE

Table 3.
Details of the participants in the focus groups (total 24)

stage, manual coding, we developed codes when dealing with the research problem, questions and main construct. Two experts examined the codes and the coding plan, as well as the instructions, as a check on the reliability of the results. Thus, the formal coding process and the trustworthiness assessment provided the confidence that the findings have encapsulated the meaning of SBE, its main antecedents and the consequences. In addition to manual coding, we then used NVivo for diagrammatic mapping of the key themes identified in the interview data. NVivo is one of the most popular and powerful software tools for assists research by storing, managing data, data reporting and analysing qualitative data (Jackson and Bazeley, 2019). Applying both manual and NVivo coding enhanced the trustworthiness of data (Maher and Dertadian, 2018).

The interviews were conducted in Chinese and recorded using two recorders. The auditory recordings were then transcribed and translated into English at the end of the investigation. For confidentiality, we renamed respondents with a code. A second recorder cross-checked the transcriptions. The translation-back-translation process was used for accuracy (Harpaz *et al.*, 2002). Four bilingual experts who are fluent English and Chinese speakers translated the transcription from Chinese to English, then English to Chinese. The data triangulation improved the richness of the research conclusion and validity of the results (Churchill, 1979; Deshpande, 1983; Foroudi *et al.*, 2016; Saunders *et al.*, 2007).

This research followed the recommendations of scholars (Bryman, 2016; Foroudi *et al.*, 2021; Holton, 2009; Maxwell, 2008), and the coding process involved three steps: open coding, axial coding and selective coding. We began with open coding, and key constructs (visual, auditory, tactile, olfactory, taste cues, SBE, customer satisfaction, brand attachment and customer lovemarks) were identified in the literature review. Next, the researcher

relocated to the axial coding and provided the data similarities and differences determined in the previous stage and examined relationships between the constructs. Finally, for the selective coding stage, the research questions were reviewed, internal consistency was checked and the wording of the definitions was refined, and also some examples were selected.

Findings

The findings of both the in-depth interviews and the focus groups achieved the goal of this study by developing an integrative framework involving multi-processes to understand SBE mining, process and applied brand data in a brand setting from both managerial and customer perspectives, which added new insights to the existing literature (Figure 1).

To answer the first research question – *what are the key elements in a multisensory brand setting that influence a positive SBE?* – all respondents recognise the value of multisensory cues on a positive sensory experience. Managers recognise that to be successful in brand management, engaging customers sensorially is a critical task. It is interesting to note that while managerial respondents focus on atmospheric content, customers view more humanised content in a mall brand setting as critical conditions for a sensorially engaging experience. For the customer respondent, it seems that sensory stimulation derived from human-to-human aspects of the environment is important, such as *attractive employees, the*
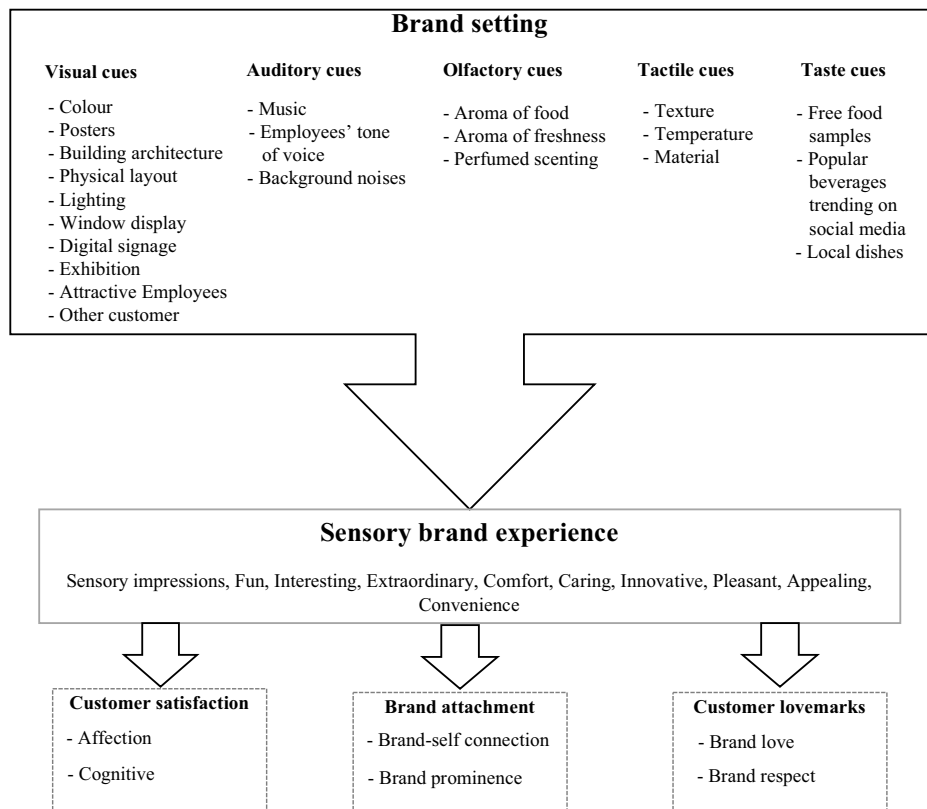
Figure 1.
Proposed model for SBE

presence of other customers and employees' tone of voice, which are among the comments put forward. Even ecological aspects of the environment are processed through the human touch lenses and smell of food, such as *food aromas to texture of chairs in the public facilities* infer how caring the mall is. Furthermore, the *management of temperature settings* and *level of background noises* are perceived by customer respondents as signals of the mall's concern for the customer's sensory experience. Customers' favourability also gravitates around social activities that allow them to participate sensorially. Events like *free food samples*, *finding popular beverages trending on social media* and *attraction of local dishes* are all key elements influencing their SBE.

In answer to the second question – *what main brand-based feeling states of SBE are?* – the finding from the study suggests that the internal processing of SBE involves ten feeling states such as *sensory impressions*, *fun*, *interesting*, *extraordinary*, *comfort*, *caring*, *innovation*, *pleasant*, *appealing* and *convenience*. The range of feeling states elicited through this study expands the current view of the SBE construct because they included several unconventional labels such as *caring*, *comfort*, *exciting*, *convenience* and *innovation*, which are not usually associated with the conventional portrayals of the SBE phenomenon, but customer respondents took the view that those characteristics of SBE must contribute to the improvement of their consumption experience.

To answer the third question – *what are the key outcomes of SBE recognising the* role *of SBE in the application of brand data?* – all respondents articulated the relationship between SBE construct and consumer–brand relationships outcomes: *customer satisfaction*, *brand attachment* and *customer lovemarks*. The findings reveal that the SBE seems to play a fundamental role in consumer–brand relationships. On the other hand, consumers who do not feel satisfied or attached to a mall brand explained that the reason is because they feel the mall does not reflect their personality, expectations and social status. The following subsection will discuss the findings from the qualitative study along with the literature.

Sensory brand experience
Researchers in marketing literature such as experiential marketing and sensory marketing researchers (Brakus *et al.*, 2009; Krishna, 2012; Schmitt *et al.*, 2015) have broadly converged on the concept that SBE relates to how brands or brand-related cues stimulate the consumers' five senses. This notion is also corroborated by respondents interviewed in the qualitative study. This is how two manager respondents view the role of SBE in their marketing activities:

> [...] we managers should be more considerate of how to provide a superior experience to our customers and we believe in the power of sensory elements, if the in-store sensory experience is attractive, it can be differentiated easily among competitors, which is a key device. Typically, positive sensory experiences that can make a strong impression and connect with consumer senses, enhance customer satisfaction, awareness and recall, so companies can improve their brand equity. (He, Store Manager)

> [...] we want to use sensory impression effectively, not too much but focussing on the visual, it's not just about using multiple sensory stimuli, understanding the meaning and importance of sensory cues, it's also about choosing the right mix to create a psychologically convincing sensory experience. (Xu, Marketing Manager)

However, informants' (managers and customers) views on what SBE represents have also extended our understanding of SBE where perception of the phenomenon is described in terms of overall affects and feeling states, rather than the stimulation from individual sensory cues. This is how one customer respondent commented:

[. . .] Once I walked around the MixC mall with my family at the weekend [. . .]. I saw the Giant Panda sculptures were on display in front of the shopping mall [. . .] it was amazing, many people stopped there and took a picture with it [. . .] so impressive. I think. A positive SBE should connect the brand and consumers, it sometimes becomes the signal of quality, it can provide the unique meaning to us. When we walk around the mall, the mall tells me what kind of brand it is, is good or bad. (Xu)

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Elder and Krishna (2021) noted that *sensory impression* is related to an individual's perception of the *intensity* of stimuli. How is intensity achieved in a sensory-driven experience? Mere visuals of giant panda sculptures are not the direct cause of arousal; it is the organisation of visual signals that elicits attention. The mix of visual sensations: the enormity (unfamiliar sensations) of the artefact plus the use a familiar Chinese icon (familiar sensations) together generate surprise and novelty. The aesthetic mix of visual elements (aesthetic meaning the optimal organisation of visual signals) – familiar/unfamiliar, congruent/incongruent – is the takeaway in this instance for marketing strategy.

In addition, the qualitative data also adds to the understanding of SBE as an entrained series of processes with neurophysiological origins where external stimuli first impinge on "the receptor cells of a sensory organ" (Krishna, 2012, p. 334). The following comments by a regular mall patron allude to these sensory processes:

> I love to go to the The MixC mall, just to window shop, walk around, designer brand shop front displays are very stimulating, besides that, the variety is also stimulating, the mall has a train for the children to move around the children's shops and an ice-skating rink that is popular, also some unique shops such as the precision DIY wooden toy shop [. . .] love the feeling [. . .] all these elements make me feel good. (Gao)

Malls are sensorially active environments. Several customer respondents have suggested that in China people patronise malls regularly because malls offer an array of engaging sensory stimulation such as creative displays, variety of brands, tools that enable multiple stimulation of the various sensory modalities such visual (e.g. shop displays), sensorimotor (e.g. trains) or somatosensory (e.g. the sense of coolness from an ice-skating rink). Thus, stores must be sensorially fulfilling environments and not just mere purchasing environments. According to a manager respondent, the generation of overall hedonic feeling states such as *pleasant* and *appealing* is the goal of a mall's marketing SBE strategy:

> Sensory experience, as a part of our sensory branding, is treated with our direct service, so it is a direct linkage between the brand and the customer's senses [. . .] [A] sensory experience can contribute to [the] pleasure feelings that consumers cannot find on online [. . .] So, [A] positive sensory experience is [the] core strategy of a company and all employees should support it. (Zhou, Duty Manager).

The importance of SBE to developing a holistic marketing strategy is underlined by a manager:

> Sensory experience, as a big part of the customer experience management and branding strategy, must meet the consumer's consumption needs. It is very crucial for our management team to focus on promoting not just the functional products, but also hedonic products, to enhance the consumer-brand relationship. A positive sensory experience can improve the brand competitiveness and enhance the overall brand performances. (Xu, Marketing Manager)

The above findings are consistent with hedonic consumption experience literature (Arnould and Price, 1993; Carù and Cova, 2003; Holbrook and Hirschman, 1982; Hirschman and Holbrook, 1982) and sensory marketing literature with embodiment approach (Krishna and Schwarz, 2014). One of the key tenets of embodiment approach is that SBE is grounded in

bodily states. Brand data mined through the sensory modalities generates interoceptive responses expressed as brand effects and feeling states (Russell and Barrett 1999). *Creating fun*, *interesting* and *extraordinary* responses is a vital part of marketing strategy.

Innovation and *comfort* are two emotive labels used by participants to describe their experience of the mall and are found in the interviews. Brand innovation is "the extent to which consumers perceive brands as being able to provide new and useful solutions to their needs" (Pappu and Quester, 2016, p. 6). Comfort states can be both physical and psychological. Physical comfort relates to sensory elements (e.g. music, temperature and design) in an environment that enhances positive body–mind feeling states, while psychological comfort refers to sensory elements in an environment that promotes a sense of safety and calm (Daniels, 2000; Simmons, 2001; Spake *et al.*, 2003). Ainsworth and Foster (2017) suggest that customers feel comfortable in a store where employees' attitudes are welcoming and positive. These feeling states have been alluded to by managers suggesting that one of their goals is to get customers to "feel at home" in their mall.

Convenience is another common emotive label used by participants and found in the interviews. Service marketing researchers (Berry *et al.*, 2002; Collier and Kimes, 2013; Seiders *et al.*, 2007) defined convenience as effortlessness, reducing the time required for shopping or for searching for product information or location. Convenience has a positive influence on utilitarian shopping values (Kesari and Atulkar, 2016). Convenience ranges from saving time to having every need meet in the same place, and most customers want something that facilitates an easy life while providing a pleasurable experience. Customer respondents noted how the sense of convenience is linked to SBE:

> I have seen many shopping malls have done a great job providing a positive shopping experience by attractive design only…. [a] good SBE would also need to [take into account] convenience for customers, for example, can you find what you want and need such as playgrounds for children, good location. For example, I always bring my children to a shopping mall, they can play in there and we can do shopping as well. (Li)

> I think a positive SBE also links to convenience, I can meet my friend, have dinner or watch movies, can find everything in there. Our city already has over 10 shopping malls, but I prefer to go to the MixC, whatever the car park or activities, etc. It feels so convenient. (FG2)

It should be noted that previous researchers (Castillo-Villar and Villasante-Arellano, 2020; Hultén, 2011; Iglesias *et al.*, 2019) do not view convenience as an important variable in SBE. However, the results of the interviews highlighted the role of the feeling of convenience as an important variable in the creation of an SBE.

Brand setting.

Visual cues. The result of the current research demonstrates that visual sensory cue is an important factor in engaging the customer sensorially and contributes significantly to the evaluation of the sensory experience towards a brand (Biswas *et al.*, 2019; Foroudi *et al.*, 2020; Roggeveen *et al.*, 2020). Scholars highlighted the need for marketing managers and researchers to understand visual stimuli to sustain a competitive advantage in today's competitive business environment (see a review of Sample *et al.*, 2020). Interviewees of the focus group corroborate with this view, emphasising the importance of visual sensory cues in shopping mall experiences and their impact on SBE:

> The visual elements in the shopping mall show the façade of the shopping mall. I mean if there are no visual elements in there, such as window displays, decorations, it means it's not a good shopping mall. But if the interior and exterior design is there that tells me that is a good place. (FG1)

I think visual elements are so important to a shopping mall because they are such an important component of a sensory impression of the mall. For example, I remember seeing a huge children's puzzle game on display in a shopping mall, I saw a toy that looks like a real person in a Lego shop, these images stayed with me. There were a lot of people around who took a picture with it. (FG2)

The above comments allude to the importance of visual stimulation as an agent of internal processes that enhance the transfer of affective brand information, enabling customers to recall positive sensory experiences such as *impression*, *so attractive* or *feel good*. Interviewees noted the importance of aesthetic design, defined in this paper as the optimal organisation of visual elements in a brand setting. For example, many commented that the aesthetic organisation of a storefront window is a powerful tool to draw customers into the store. The effectiveness of a store window relies largely on visual stimulation (Romero and Biswas, 2016). Still on the issue of store windows, another respondent added:

If I want to buy clothes when I pass a shopping mall, I probably don't know that place, but if the window displays are attractive, I might walk in and have a look (Bao).

Besides the aesthetic design, the importance of functional design is noted. For example, a customer participant mentioned layout as an important source of sensory stimulation:

Shopping is a kind of relaxation, it is not just buying. I don't like the shopping mall being so crowded because it gives me a depressed feeling. so, the well-designed layout is important, especially space (FG4).

Research into ambient elements often explores lighting and brightness of visual stimulation. According to Roggeveen *et al.* (2020), ambient lighting is that part of visual stimulation that can evoke a high degree of pleasure, and the interviews explored how lighting and brightness influence their shopping experience. An interviewee from a focus group made the following comment: "I prefer the light to be warm, it gives me a very warm feeling, at least not too bright" (FG2). Another commented: "Normally, shopping mall lighting is still relatively adequate, it gives you the feeling that is also relatively warm, but some are dark" (FG 4).

Visual stimulation from the social environment including the role of service employees and shoppers within the vicinity is another important element mentioned by several respondents. In service experience literature, Baker *et al.* (1992) found that visual cue generated by the employees' physical or behavioural appearance predisposes the customer's perception of the quality of a brand. In consumer psychology literature, Wongkitrungrueng *et al.* (2020) studied the importance of good-looking and attractive employees in influencing consumer bargaining behaviour in retail contexts. The study concluded that employees' physical appearance is one of the important visual cues influencing sensory experience, which is also mentioned in the qualitative study, as one interviewee of focus group said that "Staff uniforms, such as all the employees wearing their store clothes as their brand models, give people a very good feeling" (FG 3), and another customer said that "if the salespeople were handsome, I would be happy" (Li); a customer in a focus group said that:

Nowadays, the shopping mall requires all staff to wear the uniform, normally black or grey, it means luxury I guess. For example, you can see the MixC mall staff wear black uniform and the staff in Wanda mall wear grey uniform (FG 1).

In the context of social environment, the other customers are another source of visual stimulation. This is true for service and retailing spaces because these settings are active social environments. The other shoppers in this instance include both people familiar to the

customer and people unfamiliar. For example, Wongkitrungrueng *et al.* (2020) and Brocato *et al.* (2012) have identified the impact of other customers on customer experience in a retail context by looking at the similarity effect: customers prefer the familiar sensations evoked by other customers they can identify with. In the focus group interviews, the following comments were provided by group participants demonstrating the similarity effect:

> One thing is different comparing the MixC mall and Wanda, you can see many young people in the MixC mall, but many middle-aged and older people in Wanda mall, I feel more comfortable to stay in the MixC mall because I feel many customers who are very like me such as have the same interests, their behavior and just look nice. So, I like a place where I can see the other customer like me and I can fit in with the group. (FG 2)

> When I go to a mall, I like when the customers around me are like I am and I feel good, sometimes, I can make friends and talk to the people around me when I want to go shopping along with them or waiting for lunch because I kind of feel like I know them and we may have some things in common. (FG 3)

Research has developed about the association between visual sensory cues and SBE, which have been researched from an ecological perspective and visual sensory cues having a positive impact on pleasure and arousal sensory experience (Grewal *et al.*, 2003; Mattila and Wirtz, 2001; Roggeveen *et al.*, 2020). For example, shopping mall managers' comments on visual sensory cues as a contributing factor towards the SBE are below:

> What the customers' eyes see is extremely important. For example, our interior and exterior design, themed-branded design, window display, layout, lighting, digital screen (products and promotion). With all these efforts, I would say that these cues can offer a pleasurable and exciting experience which customers cannot buy online. This is important to bear in mind. (He, Store Manager)

> There is no doubt that vision is a key strategy for our company, including the display, outdoor posters, location, size, layout, digital signage, colour, which are all considered by us, to provide the best experience to customers. (Zhou, Duty Manager)

Auditory cues. Previous researchers (Bartholmé and Melewar, 2016; Biswas, 2019) have emphasised the role of auditory sensory cues as a trigger of SBE. In existing literature, music has gained the most research attention because it is perceived as a manipulatable cue. Roschk *et al.*'s (2017) meta-analysis of 30 studies of store atmospherics shows that music has a positive effect on store patronage, especially if customers find the musical selection familiar and enjoyable. The consumers' preference of a musical genre that corresponds with their sense of self-identity is alluded to by some managerial respondents:

> It is important to have background music that can influence the shopping mall's atmosphere and influence consumers' moods and feelings. For music selection covers various types of music, but mostly relaxing and cheerful, sometimes we also change the tempo once in a while to communicate visible changes in store we want the customer to take note of. (He, Store Manager)

> Background music can create a personal space for customers, when they browse the products, walk around the mall and talk with their friends or family. We select the background music very carefully, sometimes it depends on the seasons such as playing Christmas songs in December, but mostly relaxing and softer music, we generally want the customer to have a happy experience, so they can stay longer. (Xu, Marketing Manager)

Aside from music's influence on mood regulation, a manager respondent also mentioned music's functional purpose in setting the emotional tone to help consumers differentiate the

different times of the day: "We play some cheerful music in the afternoon time, but some relaxing music in the morning and lunchtime" (Zhou, Duty Manager). Similarly, a customer interviewee also had this comment:

> In the Ocean Department Store in Nanjing, it has a great feature, it plays the same song at noon and then this time you don't have to look at your watch, you just know what time it is. (Bao)

Aside from music, auditory sensory cues also include sounds generated by others within the environment. A customer respondent has this positive comment about the auditory sensations provided by other shoppers:

> I prefer popular places, many people in the same place, all kinds of sounds in the background, such as the sound of conversations in the background, the sound of advertising inside the store, as well as the ambient sound of the mall. For me, a mall is a social place, if you prefer quieter places, you can go to a coffee shop (FG 1).

However, another interview made some negative comments about noise affecting the positive sensory experience towards a shopping mall: "Maybe the noise level of the mall influences my feeling, if it is so noisy, I will run away" (FG2).

Olfactory cues. The role of olfactory sensory cues is to arouse positive scent sensations in the organism alluding to a particular attribute of the brand setting (Biswas and Szocs, 2019; Biswas *et al.*, 2021; Spangenberg *et al.*, 2005). Researchers (Roschk and Hosseinpour, 2020; Spangenberg *et al.*, 1996) have consistently endorsed the important role of olfactory sensory cues for delivering a positive SBE to influence consumption mood, evaluations of product, brand satisfaction, brand recall and repeat purchase behaviours. A manager informant commented on the importance of creating a sense of freshness in the store:

> Olfactory cues are important in a shopping mall, enabling them to get consumer's attention and positive emotion. The ambient odours such as the smell of freshness and signature scent strategy in our mall are used to differentiate us from other malls and hope consumers can remember out mall. However, the spaces are very large in the mall, so it results a lot to consider when to decide the right scent to use, so we recruited a scent company to manage it. On the other hand, as I said, a mall has a large space and includes different departments, so the smell can be different when customers walk around the mall, for example, beauty and fragrance departments may have the smell of perfume, or food stores have food aroma. (Zhou, Duty Manager)

Some customer respondents also commented on the importance of food aroma in creating a positive experience. This corresponds with existing research that observed that the smell of food can deposit sensory markers in the mind to predispose purchasing behaviour, extend shopping duration and create positive brand experiences (Spence, 2015). The following quotation is a good example of the customer response to food aromas:

> I always remember the aromas of freshly baked bread and coffee in the entrance of the MixC mall, it makes me hungry all the time when I pass that coffee shop, I really love that smell. So even though the MixC mall has 6 entrances, I always go to the same entrance of the mall to enjoy the wonderful scent. So, I think food aromas are such an important attraction for a mall brand. (Gao)

One customer interviewee highlighted the influence of food-related ambient scent on the sensory impression of a mall: "Bread aroma in the entrance of shopping mall, the smell of bread is so good" (Gao). However, it is worthwhile to note that the choice of scent is critical. Not all kinds of scent, however well-meaning, have a positive impact on shopping experience, a view highlighted by another consumer respondent from the focus group interview:

I remember going to a shopping mall, there was a strong perfume smell at the entrance that caused me to want to leave immediately, I do not like it and don't want to go to that mall again (FG2).

Tactile cues. Previous researchers have identified tactile sensory cues as one of the most important triggers of customer satisfaction, enabling the consumer to experience salient aspects of brand attributes and brand personality to reinforce brand and product evaluation (Peck and Childers, 2003; Peck et al., 2021; Luangrath et al., 2020). Enabling the customer to touch and interact with merchandise is a critical factor for successful retailing (Spence et al., 2014). The following comments by two consumer respondents focussed on how the texture and material of public facilities in the shopping mall influence their sensory experience:

I think the material and texture of public places in a shopping mall influence my feeling. From the fitting room chairs to chairs in the resting areas, after a few hours shopping, the feeling of sitting on comfortable chairs or sofa, the texture and material, leaves an unforgettable feeling in me about the mall. (Bao)

You can tell how good a mall is by what material and texture is used for public facilities in a mall, for example, the chair in the waiting area, fitting room, even the flooring and the texture of the railing, these small details make a big difference to my feelings and experience. (FG 4)

A focus group interviewee also commented on how a mall's temperature regulation is a source somatosensory stimulation: "I am really sensitive about the temperature, so too hot or too cold makes me feel uncomfortable" (FG4). When asked why he has a favourable impression of the mall, Li, a consumer respondent, provided an anecdote that best defines the link between somatosensory sensations and SBE. According to him, many older malls in China do not supply warm water in restrooms, not even in winter. At one mall visit, he was surprised to find that the mall's restroom provided warm water. That warm sensation left a sensory marker in his memory: "Every time I decide to go shopping, that sensation always makes me recall the mall" (Li).

Taste cues. The finding of this study shows that taste stimulation derived from the consumption of food or beverage products in a mall environment contributes significantly to creating a positive SBE. Roggeveen et al. (2020) suggest that retailers should pay more attention to the impact of trialability on sensory experience. According to consumer behaviour researchers, taste perception heightens hedonic engagement (Crolic and Janiszewski, 2016; Yamim et al., 2020; Zha, 2021). As consumers' gastronomic demand becomes increasingly sophisticated, the role of taste stimulation in a mall's marketing strategy becomes increasingly significant. This is what several of the manager respondents said:

In our mall, one of the big attractions is the food and beverage section on the eighth floor where we feature traditional local delicacies. Somehow for many customers, eating traditional food is not only tastier, it brings back good memories! Many consumers are local people, they love the local food hall during the shopping or after shopping. But this section also attracts some tourists who come to mall, to taste Hefei traditional food. Importantly, food courts help the mall to keep the consumer staying longer in the mall. (Zhou, Duty Manager)

In the festivals or Brand Day, we provide chocolate, candies, cocktails, or fruit to customers. Free-food sampling is more often in our grocery store and food stores. (He, Store Manager)

A customer interviewee shared a positive experience with free sampling of food: "Some food-sampling such as yoghurt and fruit in the supermarket, when you tried something, you

like and you'll be happy" (Sun). Another focus group interviewee mentioned how internet-famous food positively impacts SBE:

> I will be very happy to find that internet-famous food such as black milk tea shops or food stores in the mall, so that I will want to go there next time and it makes me feel that the mall has everything. (FG 1)

Consumer-brand relationships.
Customer satisfaction. According to Chahal and Dutta (2015) and Meyer and Schwager (2007), SBE can affect consumers' satisfaction because the consumer expectation has both a cognitive and a significant affective component. Roschk *et al.* (2017) suggests that the emotional and psychological elements of sensory experiences form a large of part of what makes up customer satisfaction. Furthermore, since satisfaction is an important tool to help consumers differentiate between the firm/brand offerings (Oliver, 1980), the impact of SBE is far-ranging. The impact of SBE on affective satisfaction is supported by data gathered from the focus group interviewees. These are some of the comments provided by customer respondents:

> Satisfaction is basic, sensory experience that can create a positive impression and a good feeling of the shopping mall resulting in satisfaction. When the sensory elements are right and pleasant, it makes me feel comfortable and satisfied with the shopping mall. (FG2)

> In my view, the parking experience can be a type of sensory experience for the mall, for the customer, parking is a vital concern that determines a positive experience for the first and last part of the shopping journey; if the parking experience is negative because of insufficient signage and an inconvenient payment system one easily becomes annoyed and it will influence one's impression of the mall. (FG 3)

Therefore, based on the literature and data gathered from focus group interviews, it can be surmised that affective satisfaction is one of the most important objectives of the shopping mall. At the same time, scholars (Oliver, 1980; Iglesias *et al.*, 2019) have also observed that sensory experience is an important component of cognitive satisfaction. This is how a manager respondent described it:

> One of the objectives of our shopping mall is to try and meet customer expectation by ensuring that the range of products/services meets their needs. So, we carefully selected brands into our mall, ensuring the quality of brand and their product. In addition, we have specific training courses for staff, morning meeting every day to ensure that we provide sufficient information to customers about the services and products in the mall so that they can maximise their mall visits. Recently, we added more service counters, one on every floor and make sure customers can locate us when they need information and assistance. (Zhou, Duty Manager)

Brand attachment. Building an internalised bonding between a consumer and a brand is extremely important for today's businesses to maximise emotional connection with their consumers. Marketing researchers have long recognised the importance of a brand performance variable like brand attachment (Park *et al.*, 2010) and the connection between SBE and brand attachment (Dolbec and Chebat, 2013; Ramaseshan and Stein, 2014). Several consumer interviewees identify a mall's fit with their personality as one of the prime reasons for feeling a sense of attachment:

> I can sense The Mixc mall is my type of shopping mall, it's just because each time I came here, I enjoyed the atmospheric and shopping experience and all the things that I brought from here are good and the time I spent in here with my friends and family is happy, I feel everything in this

mall is nice, such as the food and I even made some friends among the shopping mall staff. (Zhang)

The ambience is nice, all products and stores are aesthetic, very clean and there's a lot of space. We feel very comfortable to be here, very relaxed. It also smells very nice, I mean the food smells good, also the staff look good and welcoming, so you want to go inside and have a look inside or just walk around. (FG1)

Thus, developing brand–self connection represents one of the most important objectives of firms. Scholars (Japutra *et al.*, 2018; Park *et al.*, 2010) have demonstrated that consumers often view brands as a part of the self (e.g. personality) through a process called brand prominence. A consumer's repeated experience with a brand, over time, leads to feelings and sentiments deposited into memory. With replication of the process, memory recall develops a fluency which eventually becomes brand prominence. This is how two consumer interviewees described their experience of brand attachment:

There are three shopping malls near my house. However, I always go the MixC mall and I don't really know why. Also, sometimes I go to another city for work and if there is a MixC mall nearby, I still want to go there, maybe its because I can easily find the things I need and I trust that every time I go there I can have a positive experience, so its become a habit and you don't have to think, it just makes you feel happy. (Liu)

Deji mall sometimes comes to my mind, I miss it when I leave Nanjing, because I have really good memories in there, maybe because I often go there to meet my friends, we have a coffee or dinner in there. It is not a place for buying things, for me, it is a place that has so many happy memories. So, when I have chance to go back to Nanjing, Deji is my first option to go to. (Tian)

Customer lovemark. Sensuality is considered as one of the key drivers of customer lovemarks (brand love and brand respect). According to Roberts (2005), the three variables of lovemarks are mystery, sensuality and intimacy. Cho *et al.* (2015) argued that SBE has a strong impact on brand love and brand respect. Cho *et al.* (2018) also suggest that brand association helps create the conditions for brand love and respect. Consumer interviewees and focus group respondents have described how a positive SBE evoked love towards a shopping mall brand:

I like the MixC mall store atmospheric because I love the window display, I also like the lighting, the smell, the shops. Even though sometimes I don't buy anything, I can stay the whole day, have dinner or coffee with my friends or read a book in a bookstore. Just staying there makes me feel good. I keep buying a lot of products because I am very happy, every time I go I have a lot of confidence that the MixC mall will meet my needs. (Tang)

I love the MixC mall because the atmospherics are stimulating, I feel happy when I am there. Every time I go to the mall I find a lot of fun stuff to do. I can do yoga in the 5th floor gym, or learn English in the 4th floor English academy. After I finish my lesson or workout, I can meet my friend in the café, we can shop together, stay the whole day in the mall. Because of these consistent experiences with the mall, I love the Mixc mall. (FG3)

Perceived brand respect of the shopping mall is another positive outcome of sensory experiences. This is how one of the customer respondents described the impact of positive sensory experiences on the building of brand respect:

The mall is remarkably responsive to their customers. First, they know what the customer needs and what they are looking for – friendly service (umbrellas, childcare etc.), a comfortable resting space, sufficient parking space, great promotions, high quality products, responsive to complaints. (FG4)

Conclusion

Theoretical contributions and implications

The purposed SBE framework offers an integrated view on the mining, internal processing and application of brand data in an SBE, which provides a novel understanding of SBE as a compound of a multiple series of linked processes. To the best of our knowledge, this is the first research to explore these afferent and efferent qualities of SBE, offering a richer understanding of the SBE construct, providing a theoretical foundation on which further development of the SBE concept can be built. Furthermore, this study expanded the current view of the SBE construct by identifying ten key emotive labels to describe SBE that can be used for further study.

Additionally, this research contributes to branding literature by showing that, while individual cues generate sensations and feelings, only a set of thematically integrated cues, acting in consort within a defined setting, generates affective meanings for a brand through a positive SBE. Because we explored all components of consumers' relationship with brands, this research shows how SBE impacts consumer–brand relationships in the normal course of sensory interactions with a brand. Whereas previous findings have demonstrated the impact of SBE on several outcome variables such as customer satisfaction (Iglesias *et al.*, 2019), this study adds to the research by asserting the primary function of SBE as the first point of interface between the environment and the consumer. Moreover, while previous studies have focussed on the affective and cognitive dimensions of brand experience, this study asserts that SBE has a directive role in the brand relationship quality process. A positive SBE generates customer satisfaction, instigates brand attachment and creates customer lovemarks.

Managerial implications

The findings of this study offer managerial contributions for decision makers (i.e. marketing and brand managers, mall operators and policymakers) who wish to develop a holistic sensory strategy. The developed research framework in this research presents that a positive customer's sensory experience generated for the brand is based on the effective manipulation and management of five sensory cues, which can enhance customer satisfaction, brand attachment and customer lovemarks.

As the world emerges from the scourge of the pandemic, much has been discussed about the changes to human consumption patterns brought about by the pandemic. Of special note is the concern that consumers may stick to consumption habits like online shopping and other forms of digital consumption cultivated during the prolonged periods of lockdown and isolation, signalling a permanent turning away from patronage of physical stores and servicescapes. We argue that the need and desire for sensorially fulfilling consumption is intrinsic to human consumption. The prolonged periods of isolation will not diminish the desire for sensorial experiences; on the contrary, they will only serve to induce greater demand for sensorially fulfilling products and brands. But to meet this demand, policymakers, planners and managers need a fundamental change in their approach and mindset.

First, the ten aspects of the SBE construct (sensory impressions, caring, fun, comfortable, interesting, extraordinary, fun, innovative, pleasant and convenient) shown in Figure 1 provide the conceptual mechanism to depict SBE, which helps decision makers to measure the construct. This results imply that the consumer is an agent actively seeking sensorially gratifying, sensorially engaging and sensorially fulfilling experiences. Responses to brands are contingent on sensorially arousing, sensorially memorable and, crucially, what is

sensorially gratifying now. Triggers for continual brand engagement include a unique blend of brand sensations and various types of feeling states with a brand. Recognising that the consumer is actively mining sensory information means the practitioner should view the consumer as a *sensory consumer* and focus on delivering a positive SBE that can evoke both sensations and various feeling states rather than delivering products.

Second, this study stresses the marketers need to pay greater attention to the integration of the customer's interoceptive and exteroceptive processes of brand data in a brand setting. For example, managers need to consider the air conditioning systems that induce that somatosensory feeling of pleasantness; the warm water in the bathroom, which shows a caring environment; the outdoor space of a store that can be kept away from the ambient noise that mitigates the discomfort of jolt sensations; offering exciting programmes for members on membership day to engage a feeling of customer excitement; a feeling of the unknown; or something yet to be explored. By gratifying all aspects of customers' multisensory needs, these body–mind signals quickly associate sensations, affects and feeling states with the brand, thus creating the desire to repeat the same brand experience, resulting in a superior SBE.

Third, it is important that managers acknowledge all the elements of the five sensory cues in the context of driving a positive SBE. Our findings show it is the combination of the five sensory cues in a brand setting, rather than any single stimulant, that has a strong impact on SBE. Also, managers should consider both intended and unintended elements when managing multisensory cues in a setting. The implication for this managerial contribution is not only confined to mall operators; this principle is applicable to all brand settings such as digital settings (e.g. social media or website).

Finally, our findings show SBE as the key driver for all dimensions of consumer–brand relationships. Managers should be engaged in the creation of SBE to achieve a strong emotional connection between customer and brand, as SBE can transfer metaphorical meaning to brand personality perception, helping to match brand personality with consumers' personality, contributing strongly to a feeling of love towards a brand.

Limitations and future research
This research is limited to focus on single context-shopping mall brands and physical settings that provide the most sensory cues to consumers, but the findings of this investigation can be further applied to other contexts. The proposed model is applicable to digital settings. This may include less developed SBE and artificial intelligence (AI). In SBE, AI intervention shapes brand settings via the introduction of virtual actants. Machine learning and the predicting capability of AI alter the relationality between actants in a brand setting and the sensory representation of the brand setting in the consumer's mind (Petit *et al.*, 2021; Puntoni *et al.*, 2021; Swaminathan *et al.*, 2020). Considering the rapid intervention of digital entities in brand settings, we suggest that future SBE researchers should operationalise the model in a digital setting. This research investigated the positive SBE marketing strategy with successful experiential malls. Future research could examine both positive and negative SBE in their marketing strategies to unpack what had led a multisensory marketing strategy to failure. In addition, we suggest that future researchers should discuss the outcome of customer satisfaction, brand attachment and customer lovemarks.

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