

Extending the Link Between Ambient Scent, Emotional Brand Attachment, and Brand Loyalty: A Moderated Serial Mediation Model

Ragu Prasad Rajendran*

School of Management, Presidency University, Bengaluru, India

Abstract

This study examines the role of ambient scent in forming brand loyalty. This study proposes a moderated serial mediation model to investigate the roles of emotional states, emotional brand attachment, and fear of missing out. Drawing on the Stimulus-Organism-Response paradigm, the model suggests that emotional states and emotional brand attachment mediate the effect of ambient scent on brand loyalty. Moreover, fear of missing out moderates the serial mediating effect of emotional states and emotional brand attachment between ambient scent and brand loyalty. This research advances the current understanding of the brand loyalty literature concerning ambient scent, emotional states, emotional brand attachment and fear of missing out. It provides an important ground where marketing managers can use ambient scent to create emotional experiences to foster brand loyalty. Implications for practice and directions for future research are discussed.

Keywords: Ambient Scent, Emotional States, Emotional Brand Attachment, Fear of Missing Out, Brand Loyalty.

JEL Classification: M30, M31, M37, O31

* Corresponding author

E-mail address: raguprasadrajendran@yahoo.com

Address: School of Management, Presidency University, Bengaluru, India.

1. Introduction

Marketing managers are keenly interested in providing a good customer experience when customers shop for a product or service. Retailers look to influence customer's purchase behaviour through lighting, colour, music, shelf facings, and in-store displays. Companies focus on creating a multisensory experience by engaging all five of the customer's senses (Krishna, 2012). Firms increasingly use ambient scents in service environments through air conditioning systems of retail stores, hotels, and banks. Customers struggle to escape from ambient scents, as they are powerful and subtle influencers. Since marketers have plenty of pleasant scent options, there are exciting future avenues for research in scent marketing, promising a bright future for this innovative marketing strategy (Herz, 2011).

Marketers use scent marketing strategies to spread pleasant ambient scents in the consumption environment (Roschk & Hosseinpour, 2019; Fong et al., 2022). For instance, Nike stores use scent marketing to increase the sales of shoes (Brooks, 2023), while Mandarin Oriental hotels use scent marketing to make customers recall their brands better (Air-Scent, 2019). These positive effects of ambient scent are expected, as several research studies establish the positive relationship between ambient scent and sales volume (Kechagia & Drichoutris, 2017; Hulten, 2012; Helmefalk & Berndt, 2018). Previous research studies also establish a positive relationship between ambient scent and better customer experiences (Morrin & Chebat, 2005; Bouzaabia, 2014). However, some studies suggest that scent effects are ineffective (Mattila & Wirtz, 2001; Elmashhara & Soares, 2020; Adams & Douce, 2017; Chebat & Michon, 2003), highlighting the urgent need for an effective strategy in implementing scent marketing practices.

Because of the inconsistent findings on the effectiveness of ambient scent in literature, a solid plan for implementing scent marketing practices is yet to be provided. Despite the vast research in scent marketing, many questions remain unanswered. What impact does ambient scent have on brand loyalty? How do they interact with other variables, like emotional states and emotional brand attachment? How does the fear of missing out (FoMO) affect the above-mentioned variables? These business questions lead to some theoretical questions. While there are many studies on ambient scent (e.g., Madzharov et al., 2015; Mattila & Wirtz, 2001; Spangenberg et al., 1996) and brand loyalty (e.g., Goyal & Verma, 2024; Atulkar, 2020; Veloutsou, 2015), few studies have examined their relationship extensively (e.g., Gao & Shen, 2024; Shahid et al., 2022). This study aims to address this gap. To the author's knowledge, no research has examined the effect of ambient scent on brand loyalty through the mediating effects of emotional states and emotional brand attachment. Moreover, the hypotheses suggest that FoMO moderates the serial mediating effect of emotional states and emotional brand attachment between ambient scent and brand loyalty. Drawing on the Stimulus-Organism-Response paradigm, this study proposes a conceptual model to examine the effect of ambient scent on brand loyalty by examining the mediating effects of emotional states and emotional brand attachment and the moderating effect of FoMO on the above-mentioned variables.

The rest of the article is as follows. First, the study reviews the literature on the important constructs in the model. Second, it presents the reasoning behind the hypotheses and the conceptual model. Finally, it discusses the theoretical and managerial implications.

2. Literature Review

2.1 Scent and Consumer Behaviour

A pleasurable consumption environment is paramount for retailers and service providers to succeed (Pan & Zinkhan, 2006). If retailers design the store environment well, it might stimulate customers' senses and improve their shopping experience, which results in higher sales (Doucé & Janssens, 2013). For more than 40 years, researchers have investigated the effect of environmental stimuli on customers' shopping behaviour. (Milliman, 1982; Bellizzi et al., 1983; Ludvigson & Rottman, 1989). Specifically, researchers have focused on music, scent, and colour and their influence on consumers' emotional reactions, satisfaction and purchase intention (Sayin et al., 2015; Mattila & Wirtz, 2001; Bellizzi & Hite, 1992). Companies face the challenge of designing their multisensory atmospherics to ensure they get a good return on their investment. Ambience, design, and atmospherics are the three significant dimensions of atmospherics (Baker et al., 1992). Manipulation of the atmospheric elements could influence shopping behaviours positively and boost sales (Soars, 2009; Tai & Fung, 1997).

2.2 Emotional States - The P-A-D Paradigm

The conceptual basis for this study is the work of Mehrabian and Russell (1974). They are of the view that in the area of environmental psychology, three independent bipolar dimensions, pleasure-unpleasant, arousal-unaroused, and dominant-submissive, can be used to explain human responses to environments. Pleasure (P) describes feelings of pleasantness, enjoyment, fulfilment, and happiness; Arousal (A) represents feelings of alertness, surprise, exhilaration, and excitement; Dominance (D) refers to feelings of power, skill, competence, or mastery (Russell et al., 1981). Mehrabian and Russell (1974) have proposed a stimulus-organism-response paradigm (S-O-R) to study how environmental stimuli affect human behaviour. According to the S-O-R paradigm, environmental stimuli, such as smells, may influence people's affective states, which in turn influence people's behaviour.

2.3 Emotional Brand Attachment

Marketing managers focus on creating emotional brand attachment. Such emotional connections result in high consumer loyalty and increased company financial performance (Babić-Hodović et al., 2023). Marketing academics and practitioners are trying to understand the emotional components of consumer-brand relationships (e.g., Fournier, 1998). Attachment emotionally connects the individual to the target object (Bowlby, 1979). If consumers are firmly attached to a particular target object, they are ready to allocate emotional, cognitive, and behavioural resources to it (Holmes, 2000). While psychology literature suggests that people form attachments with individuals, marketing literature believes that consumers can form attachments with places, pets, and brands (Sable, 1995; Schouten & McAlexander, 1995). According to Park et al. (2010, p. 14), "Given the uniquely strong effects of

brand attachment..., additional research is needed on how marketers can enhance brand attachment.” Marketing managers need guidance regarding strategies to create high emotional brand attachment.

2.4 Fear of Missing Out

Various social content posted on social media platforms has led to a new phenomenon: Fear of Missing Out (FoMO). FoMO refers to the negative emotions the customers may experience when they think they cannot participate in enjoyable activities other customers engage in (Abel et al., 2016). Though FoMO has existed for several decades, the rise of social media and the internet has helped the phenomenon gain significant recognition. Individuals who experience FoMO undergo feelings of anxiety or fear regarding their nonparticipation in events that other individuals are currently enjoying (Elhai et al., 2016). Anticipated elation and anticipated envy from other people can cause a spike in FoMO, while comforting rationalizations can reduce FoMO.

2.5 Brand Loyalty

Brand loyalty refers to the special attachment of a customer towards a particular brand. Though the operationalizations and definitions of brand loyalty vary across studies, it is an important outcome variable in the marketing literature. Some research studies focus on behavioural loyalty (e.g., Romanik & Nenycz-Thiel, 2013), while others emphasize attitudinal loyalty (e.g., Kressmann et al., 2006). This research follows a study by Yoo and Donthu (2001), focusing on overall attitudinal loyalty rather than measuring brand purchase behaviour. Attitudinal loyalty refers to a customer's commitment towards the brand and the intention to engage in repurchase behaviour (Russell-Bennett et al., 2007). Service organizations consider brand loyalty significant as loyal customers positively impact sales revenues' current and future flow (Dwivedi, 2015; Dawes, 2023).

3. Research Model and Hypotheses Development

3.1 Ambient Scent and Brand Loyalty

In today's modern world, brands try to be different and build essential customer connections. To achieve this objective, brands strengthen their self-connection with the brand, promoting brand-self connection. Past research studies show that brand experience results in brand loyalty (Kastenholz, 2004; Ishida & Taylor, 2012). When consumers experience a unique and impressive brand experience, they engage in repeat purchasing behaviour to generate brand loyalty. A memorable brand experience enhances brand loyalty (Khan & Rahman, 2015). Past research studies show a positive relationship between sensory brand experience and brand loyalty (Hwang et al., 2021; Beig & Nika, 2022). When the sensory experience is pleasant, consumers experience pleasure and are willing to try the experience again (Gao & Shen, 2024). Using pleasant ambient scent in store environments creates a pleasant olfactory experience, which results in brand loyalty. Consequently,

H1: Ambient Scent is positively associated with Brand Loyalty.

3.2 The Mediating Role of Emotional States

According to Spangenberg et al. (1996), an ambient scent does not emanate from a specific object but is present in the environment. An ambient scent is an affective cue leading to consumer evaluations (Bosmans, 2006). Affect is a mix of moods and emotions (Barrett & Russell, 1998). Since smell is directly connected to emotions, it can affect the affective states before cognitive processes. Smell influences and triggers 75% of emotions, and sense of smell is the fastest way to stimulate consumers' emotions (Lindstrom, 2005). Prior research suggests that scents influence the affective state of consumers (Morrison et al., 2011; Ehrlichman & Halpern, 1988; Lee et al., 2011; Baron, 1997; Berčík et al., 2023). Research studies indicate that restaurants' ambience significantly affects customers' emotions (Kim & Moon, 2009; Jang et al., 2012; Jang & Namkung, 2009). Consequently, sensory experience positively relates to positive emotions. Recent research studies have operationalized the latent construct of emotions by Pleasure and Arousal. Chebat and Michon (2003) establish that ambient scent positively affects pleasure and arousal. Since the 1980s, the relationships between emotions, satisfaction and post-purchase behaviours have gained traction (Westbrook, 1980; Louro et al., 2005; White, 2010). In post-purchase behaviour, brand loyalty is an important variable. Previous research studies suggest that emotions mediate and subsequently affect consumer shopping behaviour (Michon et al., 2005; Morrin & Ratneshwar, 2000; Chebat & Michon, 2003). In service industries, emotions directly influence brand and service loyalty (White & Yu, 2005; White, 2006; Pullman & Gross, 2004; Barsky & Nash, 2002). In retail services, the design elements of a store affect positive emotions, which affect loyalty (Söderlund, 2007; Loureiro & Roschk, 2014). Given the preceding discussion, it is evident that ambient scent and emotional states generate greater brand loyalty. Consequently,

H2: The positive association of Ambient Scent on Brand Loyalty is mediated by Emotional States.

3.3 The Mediating Role of Emotional Brand Attachment

Nowadays, marketers use sensory marketing as an essential tool to reinforce the bond between product and customer by activating all the senses (Krishna, 2012) and triggering emotions. Marketers use customers' senses to emotionally connect them with a particular product or brand (Shimul et al., 2019). The human senses of customers significantly influence their purchase outcomes (Hultén, 2011). Sensory cues significantly affect consumer emotions, which are essential in forming emotional brand attachments (Lindstrom, 2005; Chen & Lin, 2018; Tsaur et al., 2007). An excellent sensory experience helps build a strong emotional attachment to the product or service. As a result, there is a positive effect on the time spent in the store, inclination to buy products, and loyalty of customers (Haase et al., 2020). Emotional brand attachment helps customers stay close to the brands because of their repeat purchasing behaviour (Adam et al., 2018). High attachment levels to brands lead to increased emotional dependence on brands (Thomson et al., 2005). High emotional attachment leads to repeated purchases and a high willingness to spend money and effort to buy products from that brand. This willingness leads to brand loyalty (Lee & Workman, 2015). Thus, consumers' emotional attachment encourages brand loyalty (Hwang & Kandampully, 2012). The preceding discussion shows that ambient scent and emotional brand attachment generate greater brand loyalty. Consequently,

H3: The positive association of Ambient Scent on Brand Loyalty is mediated by Emotional Brand Attachment.

3.4 The relationship between Emotional States and Emotional Brand Attachment

Consumers' affective experiences in the retail environment impact immediate sales and the future relationship between the consumer and the brand. Consumer store-evoked affect is primarily conceptualized as pleasure and arousal (e.g., Wirtz et al., 2000; Chebat & Michon, 2003). Previous research studies show that affect at the time of exposure influences immediate responses and triggers retrieval of memories linked to positive effect (Babin & Attaway, 2000; Foxall & Greenley, 1999; Menon & Kahn, 2002; Baldwin et al., 1996). Brands that trigger memories associated with positive affect should facilitate consumer attachment. Past research examined the impact of store-evoked affect on the consumer's brand attachment and found a positive relationship (Orth et al., 2010). Emotional drivers are conceptualized as antecedents of brand attachment (Hemsley-Brown, 2023). While the ambient scent may activate brand loyalty, the preceding discussion shows that brand loyalty can be amplified by generating emotions and emotional brand attachment. Consequently,

H4: Emotional States and Emotional Brand Attachment act as serial mediating factors in the positive relationship between Ambient Scent and Brand Loyalty.

3.5 The Moderating Role of FoMO

When customers are emotionally attached, they maintain the brand-self relationships by exhibiting loyalty behaviour (e.g. Oliver 1999). Because of brand attachments, customers spend more money, time, and resources to sustain the brand-self relationships. Through brand-self relationships, customers experience security, happiness, and comfort. However, motives that are self-centred or directed towards social outcomes trigger FoMO (Deci & Ryan, 1985). When they experience a high level of FoMO, consumers experiment with new brands to appease their internal and external needs. To avoid FoMO, customers like updated information and look for different brand experiences. To alleviate the anxiety and insecurity associated with FoMO, customers seek more new experiences. FoMO motivates individuals to seek new brand values, especially when they perceive the new values as superior to the old ones. Instead of being faithful to the brand benefits that are already present, consumers seek new brand experiences. In other words, with the activation of FoMO, customers will be insatiable with the current brand (Zhang, 2018; Hayran et al., 2020). Consequently, the solid emotional brand attachment will not lead to brand loyalty when FoMO interferes. Therefore, given the foregoing discussion, the following is hypothesized:

H5: FoMO moderates the positive relationship between Emotional Brand Attachment and Brand Loyalty; the higher the FoMO, the less significant the positive influence of Emotional Brand Attachment on Brand Loyalty.

H6: FoMO moderates the mediating association of Emotional Brand Attachment between Ambient Scent and Brand Loyalty; the higher the FoMO, the less significant the mediating association of Emotional Brand Attachment between Ambient Scent and Brand Loyalty.

H7: FoMO moderates the serial mediating association of Emotional States and Emotional Brand Attachment between Emotional Brand Attachment and Brand Loyalty; the higher the FoMO, the less significant the serial mediating association of Emotional States and Emotional Brand Attachment between Ambient Scent and Brand Loyalty.

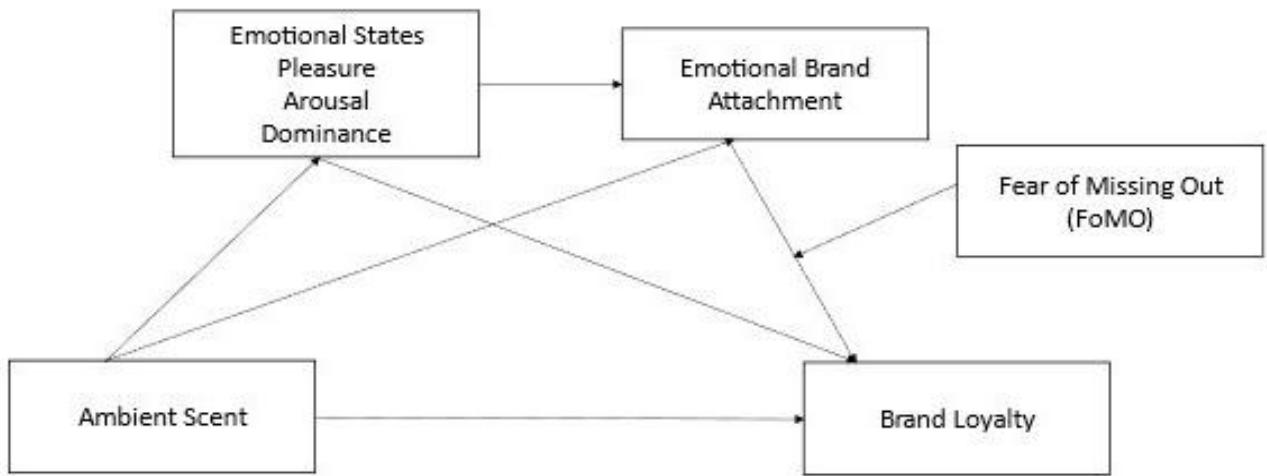


Figure 1. Proposed Conceptual Framework

4. Discussion and Conclusion

This study makes substantial theoretical contributions to ambient scent and brand loyalty literature. This research is one of the first to reveal that ambient scent significantly affects emotional states, which affects emotional brand attachment and brand loyalty. The study also uncovers the moderating effect of FoMO on the relationship between the above-mentioned variables. Specifically, according to the theoretical framework, ambient scent is essential in determining brand loyalty. Thus, when a firm strategizes to enhance its brand performance, it could focus on providing a pleasant ambient scent to its consumers, which could result in higher Pleasure, Arousal and Dominance. The dimensions of the emotional states could generate higher emotional brand attachment, leading to greater brand loyalty. Thus, if firms successfully build high emotional brand attachment by using ambient scent and P-A-D dimensions, it could increase brand loyalty. Finally, this study proposes that when using ambient scents, marketing managers should avoid inducing FoMO, which hinders the positive effects of emotional states and emotional brand attachment on brand loyalty. Studies could further empirically test the conceptual framework proposed in this research. Structural equation modelling (SEM) could be used to test the proposed model empirically.

References

Abel, J. P., Buff, C. L., and Burr, S. A., (2016), "Social media and the fear of missing out: Scale development and assessment," *Journal of Business & Economics Research*, 14(1), 33-44.

Adam, D. R., Ofori, K. S., Okoe, A. F., and Boateng, H., (2018), "Effects of structural and bonding-based attachment on brand loyalty," *African Journal of Economic and Management Studies*, 9(3), 305-318.

Adams, C. and Doucé, L., (2017), "What's in a scent? Meaning, shape, and sensorial concepts elicited by scents," *Journal of Sensory Studies*, 32(2), e12256.

Air-Scent (2019, November 19), A Scent Branding Guide To Hotel Air Fresheners & Fragrances, Air-Scent International.

Atulkar, S., (2020), "Brand trust and brand loyalty in mall shoppers," *Marketing Intelligence & Planning*, 38(5), 559-572.

Babić-Hodović, V., Mujkić, A., and Arslanagić-Kalajdžić, M., (2023), "We need both brand love and emotional attachment: A serial mediation framework toward addictive buying and loyalty," *Journal of Brand Management*, 30(1), 9-33.

Babin, B. J. and Attaway, J. S., (2000), "Atmospheric affect as a tool for creating value and gaining share of customer," *Journal of Business Research*, 49(2), 91-99.

Baker, J., Lévy, M., and Grewal, D., (1992), "An experimental approach to making retail store environmental decisions," *Journal of Retailing*, 68(4), 445-460.

Baldwin, M. W., Keelan, J. P. R., Fehr, B., Enns, V., and Koh-Rangarajoo, E., (1996), "Social-cognitive conceptualization of attachment working models: Availability and accessibility effects," *Journal of Personality and Social Psychology*, 71(1), 94-109.

Baron, R. A., (1997), "The sweet smell of... helping: Effects of pleasant ambient fragrance on Prosocial behavior in shopping malls," *Personality and Social Psychology Bulletin*, 23(5), 498-503.

Barsky, J. and Nash, L., (2002), "Evoking emotion: affective keys to hotel loyalty," *Cornell Hotel and Restaurant Administration Quarterly*, 43(1), 39-46.

Beig, F. A. and Nika, F. A., (2022), "Impact of brand experience on brand equity of online shopping portals: A study of select e-commerce sites in the state of Jammu and Kashmir," *Global Business Review*, 23(1), 156-175.

Bellizzi, J. A. and Hite, R. E., (1992), "Environmental color, consumer feelings, and purchase likelihood," *Psychology & Marketing*, 9(5), 347-363.

Bellizzi, J. A., Crowley, A. E., and Hasty, R. W., (1983), "The effects of color in store design," *Journal of Retailing*, 59(1), 21-45.

Berčík, J., Gálová, J., Vietoris, V., and Paluchová, J., (2023), “The application of consumer neuroscience in evaluating the effect of aroma marketing on consumer preferences in the food market,” *Journal of International Food & Agribusiness Marketing*, 35(3), 261-282.

Bosmans, A., (2006), “Scents and sensibility: When do (in)congruent ambient scents influence product evaluations?” *Journal of Marketing*, 70(3), 32-43.

Bouzaabia, R., (2014), “The effect of ambient scents on consumer responses: Consumer type and his accompaniment state as moderating variables,” *International Journal of Marketing Studies*, 6(1), 155-167.

Bowlby, J., (1979), “The Bowlby-Ainsworth attachment theory,” *Behavioral and Brain Sciences*, 2(4), 637-638.

Brooks, C., (2023, February 26), Get a whiff of this: research proves marketing with scent increases sales, *Business.com*.

Chebat, J. C. and Michon, R., (2003), “Impact of ambient odors on mall shoppers’ emotions, cognition, and spending,” *Journal of Business Research*, 56(7), 529-539.

Chen, H. T. and Lin, Y. T., (2018), “A study of the relationships among sensory experience, emotion, and buying behavior in coffeehouse chains,” *Service Business*, 12(3), 551-573.

Dawes, J. G., (2023), “Patterns of buyer behavior and brand metrics in a “high loyalty” category: Liquor,” *Journal of Consumer Behaviour*, 22(5), 1173-1187.

Deci, E. L. and Ryan, R. M., (1985), “The general causality orientations scale: Self-determination in personality,” *Journal of Research in Personality*, 19(2), 109-134.

Doucé, L. and Janssens, W., (2013), “The presence of a pleasant ambient scent in a fashion store,” *Environment and Behavior*, 45(2), 215-238.

Dwivedi, A., (2015), “A higher-order model of consumer brand engagement and its impact on loyalty intentions,” *Journal of Retailing and Consumer Services*, 24, 100-109.

Ehrlichman, H. and Halpern, J. N., (1988), “Affect and memory: Effects of pleasant and unpleasant odors on retrieval of happy and unhappy memories,” *Journal of Personality and Social Psychology*, 55(5), 769-779.

Elhai, J. D., Levine, J. C., Dvorak, R. D., and Hall, B. J., (2016), “Fear of missing out, need for touch, anxiety and depression are related to problematic smartphone use,” *Computers in Human Behavior*, 63, 509-516.

Elmashhara, M. G. and Soares, A. M., (2020), “The influence of atmospherics general interior variables on shoppers’ emotions and behavior,” *The International Review of Retail Distribution and Consumer Research*, 30(4), 437-459.

Feldman Barrett, L. and Russell, J. A., (1998), "Independence and bipolarity in the structure of current affect," *Journal of Personality and Social Psychology*, 74(4), 967-984.

Fong, L. H., Lei, S. S., Chow, C. W., and Lam, L. W., (2022), "Sensory marketing in hospitality: A critical synthesis and reflection," *International Journal of Contemporary Hospitality Management*, 35(8), 2916-2928.

Fournier, S., (1998), "Consumers and their brands: Developing relationship theory in consumer research," *Journal of Consumer Research*, 24(4), 343-353.

Foxall, G. R. and Greenley, G. E., (1999), "Consumers' emotional responses to service environments," *Journal of Business Research*, 46(2), 149-158.

Gao, F. and Shen, Z., (2024), "Sensory brand experience and brand loyalty: Mediators and gender differences," *Acta Psychologica*, 244, 104191.

Goyal, A. and Verma, P., (2024), "The relationship between brand engagement, brand loyalty, overall brand equity and purchase intention," *Journal of Strategic Marketing*, 32(1), 65-79.

Haase, J., Wiedmann, K. P., and Bettels, J., (2020), "Sensory imagery in advertising: How the senses affect perceived product design and consumer attitude," *Journal of Marketing Communications*, 26(5), 475-487.

Hayran, C., Anik, L., and Gürhan-Canli, Z., (2020), "A threat to loyalty: Fear of missing out (FOMO) leads to reluctance to repeat current experiences," *PLoS One*, 15(4), e0232318.

Helmeffalk, M. and Berndt, A., (2018), "Shedding light on the use of single and multisensory cues and their effect on consumer behaviours," *International Journal of Retail & Distribution Management*, 46(11/12), 1077-1091.

Hemsley-Brown, J., (2023), "Antecedents and consequences of brand attachment: A literature review and research agenda," *International Journal of Consumer Studies*, 47(2), 611-628.

Herz, R. S., (2011), "The emotional, cognitive, and biological Basics of olfaction: Implications and Considerations for Scent Marketing," In Routledge eBooks (pp. 117-138).

Holmes, J. G., (2000), "Social relationships: The nature and function of relational schemas," *European Journal of Social Psychology*, 30(4), 447-495.

Hultén, B., (2011), "Sensory marketing: the multi-sensory brand-experience concept," *European Business Review*, 23(3), 256-273.

Hultén, B., (2012), "Sensory cues and shoppers' touching behaviour: the case of IKEA," *International Journal of Retail & Distribution Management*, 40(4), 273-289.

Hwang, J. and Kandampully, J., (2012), "The role of emotional aspects in younger consumer-brand relationships," *Journal of Product & Brand Management*, 21(2), 98-108.

Hwang, J., Choe, J. Y. J., Kim, H. M., and Kim, J. J., (2021), "Human baristas and robot baristas: How does brand experience affect brand satisfaction, brand attitude, brand attachment, and brand loyalty?" *International Journal of Hospitality Management*, 99, 103050.

Ishida, C. and Taylor, S. A., (2012), "Retailer brand experience, brand experience congruence, and consumer satisfaction," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 25, 63-79.

Jang, S. S., Ha, J., and Park, K., (2012), "Effects of ethnic authenticity: Investigating Korean restaurant customers in the U.S.," *International Journal of Hospitality Management*, 31(3), 990-1003.

Jang, S. and Namkung, Y., (2009), "Perceived quality, emotions, and behavioral intentions: application of an extended Mehrabian Russell model to restaurants," *Journal of Business Research*, 62(4), 251-260.

Kastenholz, E., (2004), "Assessment and role of destination-self-congruity," *Annals of Tourism Research*, 31(3), 719-723.

Kechagia, V. and Drichoutis, A. C., (2017), "The effect of olfactory sensory cues on willingness to pay and choice under risk," *Journal of Behavioral and Experimental Economics*, 70, 33-46.

Khan, I. and Rahman, Z., (2015), "Brand experience anatomy in retailing: An interpretive structural modeling approach," *Journal of Retailing and Consumer Services*, 24, 60-69.

Kim, W. G. and Moon, Y. J., (2009), "Customers' cognitive, emotional, and actionable response to the servicescape: A test of the moderating effect of the restaurant type," *International Journal of Hospitality Management*, 28(1), 144-156.

Kressmann, F., Sirgy, M. J., Herrmann, A., Huber, F., Huber, S., and Lee, D.-J., (2006), "Direct and indirect effects of self-image congruence on brand loyalty," *Journal of Business Research*, 59(9), 955-964.

Krishna, A., (2012), "An integrative review of sensory marketing: Engaging the senses to affect perception, judgment and behavior," *Journal of Consumer Psychology*, 22(3), 332-351.

Lee, K., Kim, H., and Vohs, K. D., (2011), "Stereotype threat in the marketplace: Consumer Anxiety and purchase intentions," *Journal of Consumer Research*, 38(2), 343-357.

Lee, S. H. and Workman, J. E., (2015), "Determinants of brand loyalty: Self-construal, self-expressive brands, and brand attachment," *International Journal of Fashion Design, Technology and Education*, 8(1), 12-20.

Lindstrom, M., (2005), *Brand sense: Build powerful brands through touch, taste, smell, sight & sound*, The Free Press.

Loureiro, S. M. C. and Roschk, H., (2014), "Differential effects of atmospheric cues on emotions and loyalty intention with respect to age under online/offline environment," *Journal of Retailing and Consumer Services*, 21(2), 211-219.

Louro, M. J., Pieters, R., and Zeelenberg, M., (2005), “Negative returns on positive emotions: The influence of pride and self-regulatory goals on repurchase decisions,” *Journal of Consumer Research*, 31(4), 833-840.

Ludvigson, H. W. and Rottman, T. R., (1989), “Effects of ambient odors of lavender and cloves on cognition, memory, affect and mood,” *Chemical Senses*, 14(4), 525-536.

Madzharov, A. V., Block, L. G., and Morrin, M., (2015), “The cool scent of power: Effects of ambient scent on consumer preferences and choice behavior,” *Journal of Marketing*, 79(1), 83-96.

Mattila, A. S. and Wirtz, J., (2001), “Congruency of Scent and music as a driver of in-store evaluations and behavior,” *Journal of Retailing*, 77(2), 273-289.

Mehrabian, A. and Russell, J. A., (1974), “A verbal measure of information rate for studies in environmental psychology,” *Environment and Behavior*, 6(2), 233-252.

Menon, S. and Kahn, B., (2002), “Cross-category effects of induced arousal and pleasure on the internet shopping experience,” *Journal of Retailing*, 78(1), 31-40.

Michon, R., Chebat, J. C., and Turley, L. W., (2005), “Mall atmospherics: the interaction effects of the mall environment on shopping behavior,” *Journal of Business Research*, 58(5), 576-583.

Milliman, R. E., (1982), “Using background music to affect the behavior of supermarket shoppers,” *Journal of Marketing*, 46(3), 86-91.

Morrin, M. and Chebat, J. C., (2005), “Person-place congruency: The interactive effects of shopper style and atmospherics on consumer expenditures,” *Journal of Service Research*, 8(2), 181-191.

Morrin, M. and Ratneshwar, S., (2000), “The impact of ambient scent on evaluation, attention, and memory for familiar and unfamiliar brands,” *Journal of Business Research*, 49(2), 157-165.

Morrison, M., Gan, S., Dubelaar, C., and Oppewal, H., (2011), “In-store music and aroma influences on shopper behavior and satisfaction,” *Journal of Business Research*, 64(6), 558-564.

Oliver, R. L., (1999), “Whence consumer loyalty?” *Journal of Marketing*, 63(4_suppl1), 33-44.

Orth, U. R., Limon, Y., and Rose, G., (2010), “Store-evoked affect, personalities, and consumer emotional attachments to brands,” *Journal of Business Research*, 63(11), 1202-1208.

Pan, Y. and Zinkhan, G. M., (2006), “Determinants of retail patronage: A meta-analytical perspective,” *Journal of Retailing*, 82(3), 229-243.

Park, C. W., MacInnis, D. J., Priester, J. R., Eisingerich, A. B., and Iacobucci, D., (2010), “Brand attachment and brand attitude strength: Conceptual and empirical differentiation of two critical brand equity drivers,” *Journal of Marketing*, 74(6), 1-17.

Pullman, M. E. and Gross, M. A., (2004), “Ability of experience design elements to elicit emotions and loyalty behaviors,” *Decision Sciences*, 35(3), 551-578.

Romanik, J. and Nenycz-Thiel, M., (2013), "Behavioral brand loyalty and consumer brand associations," *Journal of Business Research*, 66(1), 67-72.

Roschk, H. and Hosseinpour, M., (2019), "Pleasant ambient scents: A meta-analysis of customer responses and situational contingencies," *Journal of Marketing*, 84(1), 125-145.

Russell, J. A., Ward, L. M., and Pratt, G., (1981), "Affective quality attributed to environments: A factor analytic study," *Environment and Behavior*, 13(3), 259-288.

Russell-Bennett, R., McColl-Kennedy, J. R., and Coote, L. V., (2007), "Involvement, satisfaction, and brand loyalty in a small business services setting," *Journal of Business Research*, 60(12), 1253-1260.

Sable, P., (1995), "Pets, Attachment, and Well-Being across the Life Cycle," *Social Work*.

Sayin, E., Krishna, A., Ardelet, C., Decré, G. B., and Goudey, A., (2015), "'Sound and safe': The effect of ambient sound on the perceived safety of public spaces," *International Journal of Research in Marketing*, 32(4), 343-353.

Schouten, J. W. and McAlexander, J. H., (1995), "Subcultures of Consumption: An ethnography of the new bikers," *Journal of Consumer Research*, 22(1), 43-61.

Shahid, S., Paul, J., Gilal, F. G., and Ansari, S., (2022), "The role of sensory marketing and brand experience in building emotional attachment and brand loyalty in luxury retail stores," *Psychology & Marketing*, 39(7), 1398-1412.

Shimul, A. S., Phau, I., and Lwin, M., (2019), "Conceptualising luxury brand attachment: scale development and validation," *Journal of Brand Management*, 26(6), 675-690.

Soars, B., (2009), "Driving sales through shoppers' sense of sound, sight, smell and touch," *International Journal of Retail & Distribution Management*, 37(3), 286-298.

Söderlund, M., (2007), "Consumers as masters and slaves in the store: An examination of perceived control, emotions, and loyalty," *European Retail Digest*, 54, 42-47.

Spangenberg, E. R., Crowley, A. E., and Henderson, P. W., (1996), "Improving the store environment: Do olfactory cues affect evaluations and behaviors?" *Journal of Marketing*, 60(2), 67-80.

Tai, S. H. and Fung, A. M., (1997), "Application of an environmental psychology model to in-store buying behaviour," *The International Review of Retail, Distribution and Consumer Research*, 7(4), 311-337.

Thomson, M., MacInnis, D. J., and Park, C. W., (2005), "The ties that bind: Measuring the strength of consumers' emotional attachments to brands," *Journal of Consumer Psychology*, 15(1), 77-91.

Tsaur, S. H., Chiu, Y. T., and Wang, C. H., (2007), "The visitors behavioral consequences of experiential marketing: An empirical study on Taipei Zoo," *Journal of Travel & Tourism Marketing*, 21(1), 47-64.

Veloutsou, C., (2015), "Brand evaluation, satisfaction and trust as predictors of brand loyalty: the mediator-moderator effect of brand relationships," *Journal of Consumer Marketing*, 32(6), 405-421.

Westbrook, R. A., (1980), "Intrapersonal Affective Influences on Consumer Satisfaction with Products," *Journal of Consumer Research*, 7(1), 49-54.

White, C. J., (2006), "Towards an understanding of the relationship between mood, emotions, service quality and customer loyalty intentions," *Service Industries Journal*, 26(8), 837-847.

White, C. J., (2010), "The impact of emotions on service quality, satisfaction, and positive word-of-mouth intentions over time," *Journal of Marketing Management*, 26 (5-6), 381-394.

White, C. and Yu, Y. T., (2005), "Satisfaction emotions and consumer behavioral intentions," *Journal of Services Marketing*, 19(6), 411-420.

Wirtz, J., Mattila, A. S., and Tan, R. L., (2000), "The moderating role of target-arousal on the impact of affect on satisfaction—An examination in the context of service experiences," *Journal of Retailing*, 76(3), 347-365.

Yoo, B. and Donthu, N., (2001), "Developing and validating a multidimensional consumer-based brand equity scale," *Journal of Business Research*, 52(1), 1-14.

Zhang, Z., (2018), "Fear of missing out: Scale development and impact on brand loyalty, Doctoral dissertation, University of Texas at El Paso, University of Texas at El Paso Research Repository.