

An Exploratory Study on Olfactory Cues in Retail Stores

*Akshat Aditya Rao*¹
*Bharti Jain*²

Abstract

The study aimed to explore the factors of olfaction that affected purchases in retail stores and shed light on the enablers of olfactory factors for retailers. The study was accomplished by using structured questionnaires in the urban cities of India. A total of 356 customers were surveyed. The inferential statistics techniques, which included exploratory factors analysis and one-way ANOVA were applied. The study extracted 4Is: Interaction with scent, inhabitants of scent, impelling effect of scent, and intensity of scent as prime factors of olfaction that affected customer purchases in retail stores. The study revealed that frequency of visit, amount spent during a visit, and purpose of visiting a retail store were significant enablers of olfactory factors. Olfactory factors obtained in this research will help retail managers apply olfactory cues in controlled (intensity) and best manner (pleasantness and pairing). The study also contributed to the extant literature by highlighting the significance of olfaction for retail stores.

Keywords : olfaction, scent, smell, survey, exploratory factor analysis, intensity

Paper Submission Date : February 5, 2021 ; Paper sent back for Revision : July 9, 2021 ; Paper Acceptance Date : September 25, 2021 ; Paper Published Online : December 15, 2021

The present study focuses on the sensory perception of customers and the factors of olfaction that affect purchases in retail stores of the Indian market. In the Indian context, the retail business holds immense scope for expansion due to the increase in urbanization, young population, brand consciousness, and the purchasing power of customers (Swar, 2007; Talwar, 2010). Three dimensions of scent are discussed, that is, presence, pleasantness, and pairing of scent. The presence of scent is found to have a positive impact on customer attitudes — whether it is product imbibed (direct) or present in the environment, pleasantness shows the effect of favorable or adorable smell on cognition, and the third component, pairing, is the component of scent which highlights how emotions and behavior of customers are affected when scents are associated with products. Chebat and Michon (2003) proposed that there is a vast amount of literature involving auditory, visual cues, but little research is available on olfactory atmospherics and their effect on customers' evaluation of stores or products. Danziger (2019) also supported the fact that retailers would benefit by building experience with smell. This will cement the in-store memories of customers, triggering emotional responses. The activating sense of smell makes it easier for retailers to engage customers in the real world. Therefore, the present research aims to answer the following questions :

- (1) What are the factors of olfaction that affect purchases in retail stores ?
- (2) How do olfactory factors vary with respect to frequency of visit, purchases, and buying purpose of customers ?

¹ *Assistant Professor (Corresponding Author)*, School of Management Studies, The Northcap University, Gurgaon - 122 017, Haryana. (Email : akshataditya@gmail.com) ; ORCID iD : <https://orcid.org/0000-0003-1149-8513>

² *Visiting Faculty*, University of College of Commerce and Management, Mohan Lal Sukhadia University, Udaipur - 313 001, Rajasthan. (Email : bhartihiaran@yahoo.com)

DOI : <https://doi.org/10.17010/ijom/2021/v51/i12/167219>

Literature Review

According to Morrin and Ratneshwar (2000), the sensory observations of customers play a significant role in attracting the interest of retailers. The “sensory image” (Davies et al., 2003) and “sensory advertisement” (Yun & Yazdanifard, 2013) help in reviving the remembrance of a particular product, brand, or service in the mind of a customer. It produces specific emotional effects in buyers that increase their chance of purchase. Further, when the environment is actively planned, the product goes beyond its tangible aspects and influences the customer psychologically. Turley and Milliman (2000) mentioned that well-planned atmospherics positively impact the retail business. Store atmospherics affect customers' attention, perceived value, purchase intention, and customer behavior while shopping (Singh et al., 2014). Sensory marketing has come up with a new dimension of marketing. According to Kahn (2007), sensory marketing is the purposeful design and deployment of the interaction between the senses to stimulate a customer's relationship with a brand and foster a lasting emotional connection that optimizes purchasing and brand loyalty. Krishna (2012) stated that sensory marketing has made significant advancements over the past decade, but research in this area is still in its nascent stage. Yeoh and Allan (2020) emphasized that sensory marketing allures the senses, and therefore, it can be of paramount importance to marketers across the globe.

To enhance the customers' experience, retailers should focus more on emotional impacts to learn more about customer behavior in their respective stores (Atulkar & Kesari, 2016; Shankar et al., 2010). According to Arnold Zlotnik, President and CEO of Air-Scent International, olfaction is the most fundamental of all five senses because the brain responds to a fragrance before the other four senses come into play. Further, lights, window displays, decorations, layout, and sales staff also play a supporting role in delivering a pleasant olfactory consumer experience, but their power is secondary to smell. Sensory marketing can be of high utility for retailers (Goldkuhl & Styvén, 2007; Morrison & Crane, 2007). It supports the phenomenon of “experience economy,” which was coined by Pine et al. (1999). They opined that a retailer's objective should be to create a favorable experience for the customer rather than just selling a product, and it can be achieved through sensory cues. The retail environment so created affects customers' emotions, attitudes, and purchase behavior (Donthu & Yoo, 1998; Hultén, 2011), making it easy for the retailer to achieve their ends (Baker et al., 2002). If an experience is customized, it will automatically drive companies' transformation (Pine II & Gilmore, 2016). If a scent can be used in a genuinely innovative manner, it will act as a boon to the market (Shiu et al., 2006). The scent present in the environment is called an ambient scent. Spangenberg et al. (1996) defined an ambient scent as a scent not emanating from a particular object but one present in the environment.

According to Alex and Menon (2018), scent as a sensory cue affects customer behavior positively, which in turn may increase the probability of purchase (Baker et al., 2002; Mattila & Wirtz, 2001), increase stay time (Milliman, 1982), decrease the perception of buying time and wait (Parsons, 2009), and also have a positive influence on customer perception of a store (Hui & Bateson, 1991). According to Diez et al. (2000), the intensity of scent also affects customers' behavior. The pleasant scent in a store encourages the customer to visit again and again (Ali et al., 2016). The pairing of pleasant smells with product displays has the highest positive impact on customers (Fiore et al., 2000; Morrin & Ratneshwar, 2003; Spangenberg et al., 2006). Davies et al. (2003) found scent as a means to trigger memories related to stores. Pleasant memories result in intensifying the bond between retailers and customers. Bradford and Desrochers (2009) and Siraj and Kumari (2010) documented the fact that customer delight is of utmost importance for any retail store, especially supermarkets and malls. Marketers use scents to emotionally connect with customers (Rathee & Rajain, 2018; Shiu et al., 2006). Gundala (2010) discussed how retail stores struggle to have a distinguished impact over the customer's mindset. Experiential retailing as a strategy can transform purchase into a consumption experience (Chatterjee & Kundu, 2020; Kim, 2007).

The literature review showcases olfactory experience, presence of scent, pleasantness of scent, and pairing of scent as an innovator or life-changing instrument in retailing.

Research Backdrop

The rapid emergence of organized retail outlets like malls and hypermarkets is augmenting organized retail growth. Indian retail has undergone a huge transformation and has immense growth potential. The overall retail market is assumed to cross \$ 1.75 trillion mark by 2026 against \$ 795 billion in 2017. As per the Indian Retail Industry Report (2020), the Indian retail industry has emerged as a dynamic industry with the contribution of over 10% in the gross domestic product (GDP). With the rapid rise in e-commerce and online stores, brick and mortar stores need a more effective weapon to compete. However, due to changes in trends, the retail stores are also facing challenges. In this ever-changing environment, traditional styles of serving customers can neither beat the competition nor can these assist in survival. Therefore, retail stores have to work on developing pleasant atmospherics in their stores; thereby, this study has been designed to explore factors of olfaction that affect purchases in Indian retail stores.

Research Framework

The present research is on olfactory cues in retail stores primarily focused on urban cities of India such as the National Capital Region (Delhi, Noida, Gurugram, and Ghaziabad), Mumbai, Pune, Bangalore, Hyderabad, Ahmedabad, Bhopal, Chandigarh, and Jaipur. The study focuses on the factors of olfaction that affect purchases in retail stores and the factors varying with respect to customers' frequency of visit, purchases, and buying purpose. The primary rationale is to target only those respondents who went to supermarkets, hypermarkets, malls, etc., for shopping. The study is based on a survey, and the target population was mainly covered through personal administration of the research instrument at shopping malls and supermarkets. The data collection took approximately four months (October 2020 – February 2021). A total of 1,853 respondents were surveyed in the aforementioned cities, and we maintained a weekly log to keep a record of the survey forms distributed. We also kept the survey forms at the billing counters of the retail stores in order to get the questionnaires filled.

Further, the survey was circulated through web links to those customers who shared their contact numbers and were interested in participating in the survey. Overall, the sampling was purposive in nature, where we chose only those customers who did their shopping mainly through supermarkets. According to Samuels (2015), 10–12 responses per item are sufficient in survey research where the population is infinite. This study contained 24 items in the administered research instrument. Therefore, responses should have been around 240 – 288; however, the received responses were 356, a figure much higher than the requisite number. The response rate is computed based on the sampling frame prepared by us. It was developed by collecting email ids or personal contacts with the participants who did shopping through malls, supermarkets, and hypermarkets. Therefore, the sampling frame comes out to be 356, which gives a response rate of 19.21%.

The data were generated through a structured questionnaire, and an extensive literature survey was done to design the research instrument (Mehrabian & Russell, 1974). The research instrument was divided into three sections: demographic information, the significance of scent, and olfactory factors affecting customers' purchase decision-making process. The first two sections consisted of questions pertaining to nominal and ordinal order ; whereas, the last section dealt with the scalar data. Here, 24 statements were included regarding the agreeability of the respondents towards the effect of scent in the customer decision-making process in retail stores. This was done using a 7 - point Likert scale where 1 = *strongly agree*, 2 = *agree*, 3 = *somewhat agree*, 4 = *neither agree nor disagree*, 5 = *somewhat disagree*, 6 = *disagree*, and 7 = *strongly disagree*. The reliability of the items in the

research instrument was measured by using Cronbach's alpha, thereby ensuring the internal consistency among the statements grouped into different factors.

Data Analysis and Results

The data were analyzed using descriptive and inferential statistics techniques and used SPSS version 21 and Microsoft Excel for analysis.

Table 1 describes the sample profile of the respondents participating in the survey. The demographics of the respondents have been studied in terms of gender, age, marital status, and occupation. Most of the respondents were male (66%) and were aged between 25 – 40 years (60%). The majority were married (60%), and the rest were either single or divorced; 34% of the respondents were from the service sector; whereas, self-employed and homemakers were 25.5% and 22.5% in proportion, respectively. Further, others included students, retired persons, and dependents too.

Table 1. Sample Profile of the Respondents

Parameters	Frequency of Respondents	Percentage of Respondents
Gender		
Male	235	66
Female	121	34
Age		
Less than 25 years	62	17
25 – 40 years	214	60
Above 40 years	80	23
Marital Status		
Single	97	27
Married	215	60
Divorced	54	15
Occupation		
Service	119	34
Self Employed	87	25.5
Homemaker	76	22.5
Others	64	18
Total	356	

Table 2 presents the participants' consistency in visits, purchases, and purpose to visit retail stores. Most of the respondents were regular visitors to the retail stores; only 23% participants made comparatively fewer visits, that is, once in a month; 45% of the participants spent up to ₹ 2,000 per visit, and 35% paid up to ₹ 5,000 or even more in a single visit to a retail store. Very few (2%) respondents visited a retail store for pleasure; however, a substantial percentage of participants (45%) visited the stores for both buying and pleasure. The data shows that the respondents' prime intention was to make purchases while visiting a retail store.

According to Kumamoto and Tedjakusuma (2018), scents attract customers while purchasing items from stores. It indicates that scent affinity increases customers' involvement in a store (Gomez & Garcia, 2014).

Table 2. Details of Customers' Regularity, Purchases, and Purpose to Visit the Retail Stores

A. Regularity of Visit to a Retail Store			B. Purchase per Visit from a Retail Store		
	<i>F</i>	<i>P</i> (%)		<i>F</i>	<i>P</i> (%)
Every day	42	12	Less than ₹ 1,000	63	18
Once in a week	140	39	₹ 1,000 – 2,000	161	45
More than once in a month	84	24	₹ 2,000 – 5,000	118	33
Once in a month	83	23	More than ₹ 5,000	7	2
Uncertain	7	2	Uncertain	7	2
C. Purpose of Visit to a Retail Store					
	<i>F</i>	<i>P</i> (%)			
Buying	188	53			
For pleasure	7	2			
Buying and pleasure	161	45			

Note. *F* = frequency ; *P* = percentage.

Table 3 describes the inclination of participants towards scents. When asked if they enjoyed wearing perfumes while going for an outing, 23% of the participants were affirmative towards it, while 48% were moderately inclined, and 30% did not like it at all.

Scent intensity means perceived concentration (Morris & Ratneshwar, 2003), and it is an essential factor in purchase, thereby creating a difference in customer response. According to Diez et al. (2000), customers spent less time in stores with high scent intensity. As shown in Table 4, most of the respondents had come across a moderate intensity of scents, while only 16% of them experienced low as well as highly intense scents. It indicates that the retailers in India have used scents with moderate intensity. Nibbe and Orth (2017) also observed high-intensity scents as pleasant scents overpowering and then becoming aversive.

The study has performed principal component analysis (PCA) on 24 items/statements describing the significance of scents in purchase decisions. Varimax rotation has been used to explore the olfactory factors affecting customer purchase decisions. The Kaiser–Meyer–Olkin (KMO) measure of sample adequacy (KMO = 0.926) and Bartlett's test of sphericity ($p < 0.001$) are statistically significant as per the requirement of exploratory factor analysis (Bartlett, 1954; Kaiser, 1974). The standardized factor loading of all statements is greater than 0.5 (Hair et al., 2010). The study has explored four factors with a total of 20 statements after deleting four statements with factor loading less than 0.4. This answers the critical objective of the paper and thereby

Table 3. The Affinity of the Respondents Towards Scents

Do you enjoy wearing perfumes while going for outings (1 for definite yes and 7 for definite no)?		
Ranking Order	Frequency	Percentage
1	69	19
2	14	4
3	56	16
4	63	18
5	49	14
6	42	12
7	63	18

Table 4. Intensity of Scent

Rate odor or scent according to the most likely intensity you came across while buying (1 refers to <i>highly intense</i> and 7 refers to <i>least intense</i>)		
Ranking Order	Frequency	Percentage
1	14	4
2	42	12
3	77	22
4	118	33
5	49	14
6	14	4
7	42	12

identifies the factors of olfaction that might affect the customer buying decisions. The study extracts four factors, namely Interaction with Scent (F1), Impelling Effect of Scent (F2), Scent Inhabitants (F3), and Intensity of Scent (F4).

The first factor, Interaction with Scent, comprises of seven items and reflects that the interface of respondents with scent was natural (FL= 0.758). The second factor, Impelling Effect of Scent, consists of six items and reveals that scents compelled the respondents to stay longer at retail stores (FL = 0.751). The third factor, Scent Inhabitants, has been best described by the statement that the presence of scents is the unintentional reason for purchase, with the highest factor loading (0.83) among all five items. Finally, Factor 4, that is, Intensity of Scent, is best illustrated by the statement that highly intense smells irritated the respondents (0.869) (see Table 5).

Therefore, the study explores 4Is of olfaction: interaction, impelling effect, inhabitation, and scent intensity.

Table 5. Descriptive and Factor Analysis

Factors	Items	Min	Max	Mean	SD	Skewness		Kurtosis		FIs	α
						Stats	SE	Stats	SE		
F 1	My interaction with the environment of scents and smell is natural.	1	7	2.59	1.661	1.187	0.129	0.821	0.258	0.758	0.908
	I can easily process scents in a retail store.	1	7	2.64	1.709	0.944	0.129	-0.062	0.258	0.652	
	I can easily differentiate among scents/smell in a store.	1	7	2.69	1.653	1.006	0.129	0.512	0.258	0.667	
	My visit to a store becomes interesting in the presence of scents.	1	7	2.55	1.592	1.209	0.129	0.881	0.258	0.633	
	I prefer to visit a store with pleasant scents.	1	7	2.69	1.889	0.990	0.129	-0.233	0.258	0.682	
	I feel relaxed and my mood becomes good in pleasant scents.	1	7	2.51	1.791	1.234	0.129	0.439	0.258	0.634	
	Appropriate scents are used in the store.	1	7	2.60	1.331	1.007	0.129	0.945	0.258	0.719	

F 2	I usually purchase more than needed when I come in contact of scents.	1	7	3.27	1.863	0.646	0.129	-0.704	0.258	0.634	0.906
	I prefer to purchase from a store when a scent suits me.	1	7	2.64	1.572	1.216	0.129	1.041	0.258	0.76	
	I enjoy the presence of scents in a store.	1	7	2.53	1.689	1.058	0.129	0.022	0.258	0.628	
	A store becomes more appealing in the presence of pleasant scents.	1	6	2.44	1.590	1.068	0.129	-0.060	0.258	0.622	
	Presence of scents improves my mood to stay for long in a store.	1	7	2.77	1.877	0.987	0.129	-0.323	0.258	0.751	
	The store has a foul smell.	1	7	3.32	1.891	0.716	0.129	-0.470	0.258	0.733	
F 3	I find scents as one of the factors behind my visit to a store.	1	7	3.72	1.864	0.461	0.129	-0.889	0.258	0.789	0.931
	Store with product and scent match is my priority.	1	7	3.13	1.976	0.722	0.129	-0.764	0.258	0.609	
	I can easily find products due to availability of scents in a store.	1	7	3.21	2.028	0.734	0.129	-0.765	0.258	0.628	
	Presence of scents turns an unintentional visit to purchase decision.	1	7	3.59	1.967	0.662	0.129	-0.870	0.258	0.83	
	Pleasant scents bound me to visit a store again and again.	1	7	3.51	2.019	0.425	0.129	-1.055	0.258	0.759	
F 4	I love visiting stores with mild scents.	1	7	2.51	1.865	1.299	0.129	0.522	0.258	0.603	0.623
	Stores which are loaded with intense scents irritate me.	1	7	2.28	1.649	1.539	0.129	1.894	0.258	0.869	

Note. *F* = Factors ; *SD* = Standard deviation ; *SE* = Standard error ; *FI* = Factor loadings ; α = Cronbach's alpha.

Interaction here means coming in contact with scents, which supports scent's "presence" dimension as discussed in the literature. The right scent interaction makes positive emotional responses possible and makes the store irresistible. The second "I," that is, Inhabitants means to stay and represents the presence of scents bounding customers to stay for long as these are found to be appealing. It supports the "pleasant" dimension of scent. The third "I," that is, Impelling means an urge to do something. Here, it represents unplanned purchases due to the effortless pairing of scents with products in the store, followed by the easy accessibility of products. This includes the "pairing" dimension of scent. The last "I," that is, Intensity, refers to the power of scents. Mild scents seem positive as these do not interfere in customer decision-making.

The extracted factors have been tested for normality, and weighted average factor scores have been taken for further analysis. Table 6 presents the descriptive statistics of weighted average factors and reveals that Intensity of Scent ($M = 1.747$) followed by Interaction with Scent ($M = 1.770$) received the highest agreeability from the respondents. It indicates that the respondents agreed with the fact that inhabitants of scent is an imperative factor in affecting their purchase decisions. After applying all the tests of normality (not shown in the paper), it has been observed that the weighted factors are normally distributed, and therefore, the parametric tests can be applied.

Table 6. Descriptive Statistics of Weighted Factors

WF	Minimum	Maximum	Mean	SD	Skewness		Kurtosis	
					Statistic	SE	Statistic	SE
WF 1	1	3	1.770	0.763	0.619	0.129	-0.598	0.258
WF 2	0.69	4.11	1.951	0.991	0.762	0.129	-0.561	0.258
WF 3	0.72	5.06	2.503	1.262	0.534	0.129	-0.936	0.258
WF 4	0.74	5.15	1.747	1.093	1.493	0.129	1.952	0.258

Note. WF = Weighted factors ; SD = Standard deviation ; SE = Standard error.

Table 7 presents the one-way ANOVA applied to examine the following hypotheses, thereby answering our second research question.

↳ **H1** : There is a significant difference among the extracted olfactory factors w.r.t. respondents' consistency in visits to a retail store.

↳ **H2** : There is a significant difference among the extracted olfactory factors w.r.t. amount spent by the respondents during purchases in a retail store.

↳ **H3** : There is a significant difference among the extracted olfactory factors w.r.t. respondents' purpose of visit to the retail stores.

The *F* - statistics (Table 7) exhibit statistically significant differences in respondents' consistency in the visit to

Table 7. Variation in Olfactory Factors Due to Regularity, Purchase, and Purpose of Visit Exhibited by Respondents to Retail Stores

	Parameters		WF1	WF2	WF3	WF4	
1. Visit to Store	Every day	Mean	2.37	2.259	2.606	2.631	
	Once in a week		1.48	1.884	2.017	2.722	
	More than once in a month		1.95	2.017	2.722	1.683	
	Once in a month		1.81	1.869	2.488	1.917	
	Uncertain		1.37	1.588	2.837	2.907	
		One Way ANOVA	F Stats	15.582***	1.660	1.483	16.153***
2. Purchase from Store	Less than ₹1,000	Mean	1.900	2.054	2.721	1.669	
	₹1,000 – 2,000		1.890	2.084	2.658	2.139	
	₹ 2,000 – 5,000		1.550	1.767	2.170	1.305	
	More than ₹ 5,000		1.450	1.604	3.462	0.736	
	Uncertain		1.950	1.381	1.594	1.905	
		One Way ANOVA	F Stats	4.511***	2.752***	5.300***	13.225***
3. Purpose to Visit	Buying	Mean	1.800	2.037	2.700	1.544	
	Pleasure		3.010	2.519	3.297	2.801	
	Buying and pleasure		1.680	1.824	2.237	1.938	
		One Way ANOVA	F Stats	11.030***	3.207***	7.525***	9.454***

Note. *** indicates statistical significance at the .001 level.

retail stores for Factor 1 (Interaction) and Factor 4 (Intensity). It implies that these factors differ as per the number of visits made by the participants to the retail stores. It also indicates that those customers who made regular visits were more influenced by the aforementioned olfactory factors. Further, the other two parameters, such as amount spent on purchases and purpose of visit to retail stores, show statistically significant differences across all four extracted olfactory factors. The one-way ANOVA reveals that those respondents who spent less than ₹ 1,000 were more influenced by F4 (1.669), and respondents who spent between ₹ 2,000 – ₹ 5,000 were more agreeable to F1 with mean values of 1.89 and 1.55, respectively. As the amount increases above ₹ 5,000, F4 has higher importance among the respondents. While respondents who did shopping for pleasure, the impelling effect of scent plays a significant role. The results also reveal that respondents who had a dual purpose of shopping (buying and pleasure) agreed more with F1 and F2 than the other two factors. As per the analysis, the study fails to reject the hypotheses (H1, H2, & H3) and thus concludes that frequency of visits, amount spent during a visit, and purpose to visit a retail store are significant enablers of olfactory factors.

The present study has explored 4Is, namely Interaction, Impelling effect, Inhabitation, and Intensity of scent. These factors (4Is) are also innovative, including the scent dimensions (presence, pleasantness, and pairing) discussed in the literature. The 4I's derived are connected with previous studies (Bradford & Desrochers, 2009 ; Spangenberg et al., 2003; Ward et al., 2007) in the field of olfaction and thereby highlight the fact that scents possess an ability to communicate retail store image. According to the study of Bradford and Desrochers (2009) conducted in the UK, scent has the potential to act as a fantastic element of a retailer's marketing mix, and if the right scent is used, then it has a more inviting effect in a retail store in terms of a long stay, unplanned purchases, and product accessibility. This supports the impelling effect and intensity of scent. Spangenberg et al. (2003), in their research over American urban areas, supported interaction and inhabitants of scents.

Discussion and Conclusion

The study throws light on olfactory cues influencing the cognition and behavior of customers. Cognition consists of product accessibility, scent differentiation, appealing scent, store visit, store preference, and store revisit intention; behavior consists of unplanned purchase, volume purchase, and long stay. This study reflects the change in customer demand and preferences due to prevailing contemporary conditions. Therefore, more hygienic, convenient, and efficiently managed stores will be preferred by the shoppers. The present research emphasizes the significance of smell and factors affecting olfaction in retail. The use of scents can enhance customer experience, thereby acting as an enabler of retail growth. Olfactory sense, along with its application in retail, is going to be a facilitator for retailers. Through this tool, retailers are going to get a step closer towards their goals. This will create a long-lasting impression on customers and enhance customer engagement. Olfactory factors (the 4Is) discussed in the present study will help retail managers in implementing the sense of smell in a controlled (intensity) and best manner (pleasantness and pairing) for an increase in the unplanned purchases, higher sales, store patronage, enhanced store image, and recommendations that will assist in the growth of retail businesses. Further, olfactory cues can be an exciting strategy to be adopted by retailers; however, the implementation should be well thought of and measured.

Theoretical and Managerial Implications

The study examines the olfactory cues and aligns the discipline of marketing and psychology for marketers and academicians in the context of olfactory cues. This research has distinctly pointed to the business value of scented retail atmospherics, particularly when the scent is pleasant. Further, the study also provides evidence in favor of the effect of olfaction on consumer behavior. However, retailers need to be conscious in their approach as scents

can be offensive to specific sections of consumers who are particularly more sensitive to such cues as compared to others. For this, ambient scents can be used to affect customer behavior at minimum cost and efforts positively. The research is indicative of the application of olfactory cues in retail settings in India. However, due to the small sample size, the results obtained through this research should be applied cautiously.

Future Avenues for Research

Future research can be done using multisensory cues in retail. The impact of demographics on different sensory cues can also be an interesting issue for researchers. A comparative study can also be performed across countries to identify more dimensions of smell in retailing. The present study provides insights into the application of scents. The sense of smell has outstanding attributes which modulate the mood, cognition, and behavior of customers. Future research can be done using multisensory cues in retail. The impact of demographics on different sensory cues can also be an interesting issue for researchers. A comparative study can also be performed across countries to identify more dimensions of smell in retailing. The present study provides insights into the application of scents.

Authors' Contribution

Dr. Bharti Jain conceived the idea and developed the blueprint of the study. Dr. Akshat Aditya Rao extracted research papers and cleaned these based on keywords, and generated concepts and codes relevant to the study design. Dr. Akshat Aditya Rao verified the analytical methods and supervised the study. Both authors collected the data. The numerical computations were done by Dr. Akshat Aditya Rao using SPSS 20.0. Dr. Akshat Aditya Rao wrote the manuscript in consultation with Dr. Bharti Jain.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

Funding Acknowledgement

The authors received no financial support for the research, authorship, and/or for the publication of this article.

References

- Alex, N. J., & Menon, P. (2018). Influence of ambient perfumes on consumer spending behaviour : A study among apparel shoppers in an Indian setting. *Indian Journal of Marketing*, 48(1), 61–74. <https://doi.org/10.17010/ijom/2018/v48/i1/120736>
- Ali, F., Hussain, K., & Omar, R. (2016). Diagnosing customers experience, emotions and satisfaction in Malaysian resort hotels. *European Journal of Tourism Research*, 12, 25–40. <https://ejtr.vumk.eu/index.php/about/article/view/211>
- Atulkar, S., & Kesari, B. (2016). Shopping experience of hypermarket shoppers on weekends. *Indian Journal of Marketing*, 46(11), 36–49. <https://doi.org/10.17010/ijom/2016/v46/i11/104738>

- Baker, J., Parasuraman, A., Grewal, D., & Voss, G. B. (2002). The influence of multiple store environment cues on perceived merchandise value and patronage intentions. *Journal of Marketing*, 66(2), 120–141. <https://doi.org/10.1509%2Fjmk.66.2.120.18470>
- Bartlett, M. S. (1954). A note on the multiplying factors for various χ^2 approximations. *Journal of the Royal Statistical Society: Series B (Methodological)*, 16(2), 296–298. <https://www.jstor.org/stable/2984057>
- Bradford, K. D., & Desrochers, D. M. (2009). The use of scents to influence consumers: The sense of using scents to make cents. *Journal of Business Ethics*, 90, 141–153. <https://doi.org/10.1007/s10551-010-0377-5>
- Chatterjee, S., & Kundu, A. (2020). Sub-conscious decision mapping and network framework for retail market consumption. *Indian Journal of Marketing*, 50(2), 35–51. <https://doi.org/10.17010/ijom/2020/v50/i2/150440>
- Chebat, J. - C., & Michon, R. (2003). Impact of ambient odors on mall shoppers' emotions, cognition, and spending : A test of competitive causal theories. *Journal of Business Research*, 56(7), 529–539. [https://doi.org/10.1016/S0148-2963\(01\)00247-8](https://doi.org/10.1016/S0148-2963(01)00247-8)
- Danziger, P. N. (2019, April 10). Retail downsizing will accelerate, with UBS predicting 75,000 stores will be forced to close by 2026. *Forbes*. <https://www.forbes.com/sites/pamdanziger/2019/04/10/retail-downsizing-will-accelerate-as-75000-stores-will-be-forced-to-close-by-2026/?sh=483b7b9c339e>
- Davies, B. J., Kooijman, D., & Ward, P. (2003). The sweet smell of success: Olfaction in retailing. *Journal of Marketing Management*, 19(5–6), 611–627. <https://doi.org/10.1080/0267257X.2003.9728228>
- Diez, B. S., Giménez, E. A., & Delgado, C. F. (2000). The effects of environmental variables on consumer behavior. *Distribution and Consumption*, 10(54), 5–24.
- Donthu, N., & Yoo, B. (1998). Retail productivity assessment using data envelopment analysis. *Journal of Retailing*, 74(1), 89–105. [https://doi.org/10.1016/S0022-4359\(99\)80089-X](https://doi.org/10.1016/S0022-4359(99)80089-X)
- Fiore, A.M., Yah, X., & Yoh, E. (2000). Effects of a product display and environmental fragrancing on approach responses and pleasurable experiences. *Psychology & Marketing*, 17(1), 27–54. [https://doi.org/10.1002/\(SICI\)1520-6793\(200001\)17:1%3C27::AID-MAR3%3E3.0.CO;2-C](https://doi.org/10.1002/(SICI)1520-6793(200001)17:1%3C27::AID-MAR3%3E3.0.CO;2-C)
- Goldkuhl, L., & Styvén, M. (2007). Sensing the scent of service success. *European Journal of Marketing*, 41(11/12), 1297–1305. <https://doi.org/10.1108/03090560710821189>
- Gomez, M., & Garcia, C. (2014). The use of sensorial marketing in stores: Attracting clients through their senses. In *Handbook of research on retailer-consumer relationship development* (pp. 258–274). IGI Global.
- Gundala, R. R. (2010). Retail store image: A study of the Cyprus clothing industry. *International Journal of Management and Marketing Research*, 3(3), 67–81.
- Hair, J. F., Celsi, M., Ortinau, D. J., & Bush, R. P. (2010). *Essentials of marketing research* (Vol. 2). McGraw-Hill/Irwin.
- Hui, M. K., & Bateson, J. E. (1991). Perceived control and the effects of crowding and consumer choice on the service experience. *Journal of Consumer Research*, 18(2), 174–184. <https://doi.org/10.1086/209250>
- Hultén, B. (2011). Sensory marketing: The multi-sensory brand-experience concept. *European Business Review*, 23(3), 256–273. <https://doi.org/10.1108/09555341111130245>

- Kahn, R. (2007). *5-D sensory branding*. Kahn Consulting Inc.
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31–36. <https://doi.org/10.1007/BF02291575>
- Kim, S. F. (2007). *Experiential retailing: Concepts and strategies that sell*. Fairchild.
- 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. <https://doi.org/10.1016/j.jcps.2011.08.003>
- Kumamoto, J., & Tedjakusuma, A. P. (2018). A study of the impact and effectiveness of scent used for promotion of products and services with low olfactory affinity. In, *15th International Symposium on Management (INSYMA March 2018)*. Atlantis Press.
- Mattila, A.S., & Wirtz, J. (2001). Congruency of scent and music as a driver of in-store evaluations and behavior. *Journal of Retailing*, 77(2), 273–289. [https://doi.org/10.1016/S0022-4359\(01\)00042-2](https://doi.org/10.1016/S0022-4359(01)00042-2)
- Mehrabian, A., & Russell, J.A. (1974). *An approach to environmental psychology*. MIT Press.
- Milliman, R.E. (1982). Using background music to affect the behavior of supermarket shoppers. *Journal of Marketing*, 46(3), 86–91. <https://www.jstor.org/stable/1251706>
- Morrin, M., & 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. [https://doi.org/10.1016/S0148-2963\(99\)00006-5](https://doi.org/10.1016/S0148-2963(99)00006-5)
- Morrin, M., & Ratneshwar, S. (2003). Does it make sense to use scents to enhance brand memory? *Journal of Marketing Research*, 40(1), 10–25. <https://doi.org/10.1509%2Fjmk.40.1.10.19128>
- Morrison, S., & Crane, F.G. (2007). Building the service brand by creating and managing an emotional brand experience. *Journal of Brand Management*, 14(5), 410–421. <https://doi.org/10.1057/palgrave.bm.2550080>
- Nibbe, N., & Orth, U.R. (2017). Odor in marketing. In, *Springer handbook of odor* (pp. 141–142). Springer.
- Parsons, A. G. (2009). Use of scent in a naturally odourless store. *International Journal of Retail & Distribution Management*, 37(5), 440–452. <https://doi.org/10.1108/09590550910954928>
- Pine, B.J., Pine, J., & Gilmore, J. H. (1999). *The experience economy: Work is theatre & every business a stage*. Harvard Business Press.
- Pine II, B. J., & Gilmore, J. (2016). Integrating experiences into your business model: Five approaches. *Strategy & Leadership*, 44(1), 3–10. <https://doi.org/10.1108/SL-11-2015-0080>
- Rathee, R., & Rajain, P. (2018). Power of scent marketing to influence consumer behavior. *Indian Journal of Marketing*, 48(9), 26–39. <https://doi.org/10.17010/ijom/2018/v48/i9/131439>
- Samuels, P. (2015). *Statistical methods – Scale reliability analysis with small samples*. Birmingham City University, Centre for Academic Success. DOI: 10.13140/RG.2.1.1495.5364.
- Shankar, M., Simons, C., Shiv, B., McClure, S., Levitan, C., & Spence, C. (2010). An expectations-based approach to explaining the cross-modal influence of color on orthonasal olfactory identification : The influence of the degree of discrepancy. *Attention, Perception, & Psychophysics*, 72(7), 1981–1993. <https://doi.org/10.3758/APP.72.7.1981>

- Shiu, E., Walker, D., & Cheng, C. J. (2006). A theoretical investigation into the potential applications of olfactory cues to the marketing of new products. *Innovative Marketing*, 2(4), 44–53.
- Singh, P., Katiyar, N., & Verma, G. (2014). Retail shoppability: The impact of store atmospherics & store layout on consumer buying patterns. *International Journal of Scientific & Technology Research*, 3(8), 15–23. <https://www.ijstr.org/final-print/aug2014/Retail-Shoppability-The-Impact-Of-Store-Atmospherics-Store-Layout-On-Consumer-Buying-Patterns.pdf>
- Siraj, S., & Kumari, S. (2010). Delighting the customers' senses - Key to store differentiation. *Indian Journal of Marketing*, 40(6), 50–57. <http://indianjournalofmarketing.com/index.php/ijom/article/view/37332>
- Spangenberg, E.R., Crowley, A.E., & Henderson, P.W. (1996). Improving the store environment : Do olfactory cues affect evaluations and behaviors? *Journal of Marketing*, 60(2), 67–80. <https://doi.org/10.1177%2F002224299606000205>
- Spangenberg, E.R., Sprott, D.E., Grohmann, B., & Smith, R.J.(2003). Mass-communicated prediction requests: Practical application and a cognitive dissonance explanation for self-prophecy. *Journal of Marketing*, 67(3), 47–62. <https://doi.org/10.1509%2Fjmk.67.3.47.18659>
- Spangenberg, E.R., Sprott, D.E., Grohmann, B., & Tracy, D.L. (2006). Gender-congruent ambient scent influences on approach and avoidance behaviors in a retail store. *Journal of Business Research*, 59(12), 1281–1287. <https://doi.org/10.1016/j.jbusres.2006.08.006>
- Swar, B. N. (2007). Challenges and opportunities of organized retailing in India. *Journal of Marketing & Communication*, 3(2),41–49.
- Talwar, S. L. (2010). Organized retail in northern and western states. *Retailer Magazine*, 5(7).
- Turley, L.W., & Milliman, R.E. (2000). Atmospheric effects on shopping behavior : A review of the experimental evidence. *Journal of Business Research*, 49(2), 193–211. [https://doi.org/10.1016/S0148-2963\(99\)00010-7](https://doi.org/10.1016/S0148-2963(99)00010-7)
- Ward, P., Davies, B. J., & Kooijman, D. (2007). Olfaction and the retail environment: Examining the influence of ambient scent. *Service Business*, 1(4), 295–316. <https://doi.org/10.1007/s11628-006-0018-3>
- Yeoh, J. P., & Allan, D. (2020). Sounds like chicken: Sensory marketing and sound effects. *Indian Journal of Marketing*, 50(8–9), 19–31. <https://doi.org/10.17010/ijom/2020/v50/i8-9/154689>
- Yun, O.W., & Yazdanifard, R. (2013). Correlation between ambient scent and the brand positioning within consumers' unconscious self. *Global Journal of Commerce and Management Perspective*, 2(6), 12–15.

About the Authors

Dr. Akshat Aditya Rao is a marketing professional and educator having more than 12 years of experience in industry and academia. His research interests include consumer behavior, social media marketing, and retail & service marketing. He has presented papers at various international conferences and published papers in reputed journals.

Dr. Bharti Jain is a Faculty at the University College of Commerce and Management Studies, MLSU, Udaipur. She has 8 years of teaching experience in the marketing stream.