

# The Impact Of Ambient Music And Scent On Consumer Buying Behavior In Retail Environments: A Sensory Marketing Perspective In Chennai City

Carolyn Valentina. C<sup>1</sup>, Dr. J. Mahalakshmi<sup>2</sup>

<sup>1</sup>Research Scholar, PG & Research Department Of Commerce Guru Nanak College (Autonomous), Chennai, [valentinacarolin@gmail.com](mailto:valentinacarolin@gmail.com)

<sup>2</sup>Assistant Professor & Research Supervisor PG & Research Department Of Commerce Guru Nanak College (Autonomous), Chennai, [jmahalakshmi@gmail.com](mailto:jmahalakshmi@gmail.com)

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## Abstract

With the current competitive retail scenario, it has become imperative to improve customer experience in order to ensure long-term engagement and loyalty. Sensory marketing, especially in terms of ambient music and smell, is emerging as a strategic means of shaping consumer attitudes and behavior. This research analyzes the effects of ambient music and smell on consumer purchasing behavior in retail settings in Chennai city. Data was gathered from 107 respondents through a structured questionnaire and processed using SPSS tools such as descriptive statistics, correlation analysis, and chi-square tests. The findings are that although consumers are moderately affected by sensory stimuli, the explicit effect of music and odor on behavior like mood, duration spent, and impulse purchasing is nuanced. Statistically significant relationships were not observed between demographic variables (age and sex) and behavioral reactions. In spite of the scant statistical associations, the research points towards the effectiveness of expertly developed sensory ambiances in fostering enjoyable in-store experiences. Chennai retailers are advised to incorporate appropriate music based on culture and soft scent branding to increase consumer interest and satisfaction.

**Keywords:** Sensory Marketing, Ambient Music, Scent, Consumer Behavior, Retail Environment

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## INTRODUCTION

In the fast-paced and competitive retail world, companies are always on the lookout for new techniques to drive and enrich customer experience in physical store environments. While conventional marketing modes are centered around product, price, place, and promotion, an increasingly sophisticated and new method—sensory marketing—has started reshaping consumer engagement with retail spaces. Sensory marketing is designed to appeal to the five senses—sight, sound, smell, taste, and touch—to influence consumer impressions, feelings, and eventually, their shopping behavior.

Among several sensory stimuli employed in advertising, ambient scent and music are strong tools that can indirectly affect a consumer's mood, in-store time, memory for products, and buying behavior. Ambient music, if carefully selected, can raise the emotional level of a customer, making the environment more soothing or stimulating depending on the genre, speed, and volume. Likewise, appealing and persistent fragrances can improve a consumer's perception of product quality, induce emotional connections, and even boost their desire to buy. Combined, these sensory signals produce a multi-sensory environment that significantly influences consumer behavior and brand loyalty.

In the Indian context, and especially in urban cities such as Chennai, the retail business is undergoing fast change. As a result of the growth of organized retail models, shopping malls, lifestyle stores, and brand showrooms, the attention of retailers is now not only toward selling products but toward creating memorable customer experiences. While global brands tend to adopt sensory elements within their retailing strategies, the usage and effects of ambient music and scent marketing by local retailers in Chennai are unexplored.

Understanding how these sensory elements affect consumer behavior in this unique cultural and climatic setting can provide valuable insights for retailers aiming to differentiate themselves in a saturated market. Given Chennai's diverse consumer base—ranging from traditional shoppers to modern, experience-driven customers—exploring the impact of sensory marketing becomes both timely and essential.

This research is thus intended to analyze the role of scent and ambient music in influencing consumer purchasing behavior in retail stores within Chennai city. Through the application of a sensory marketing approach and the analysis of data for 107 participants, this research hopes to identify the psychological and behavioral responses that emerge when sensory stimulus is used strategically. The results will provide

actionable suggestions to retail managers and marketers for how to capitalize on sensory inputs in order to increase customer engagement, dwell time, and ultimately, sales.

### **Objectives of the Study**

1. To examine the effect of ambient music on consumers' emotional state and shopping behavior in retail stores across Chennai.
2. To assess the role of in-store scent in influencing customer mood, product evaluation, and purchase intention.
3. To analyze the relationship between sensory stimuli (music and scent) and the time spent by consumers inside the retail store.
4. To identify differences in sensory response across demographic variables such as age, gender, and shopping frequency.
5. To evaluate consumer awareness and perception of sensory marketing strategies used by retail outlets in Chennai.
6. To provide actionable recommendations for retail marketers and store managers on integrating sensory marketing techniques to improve customer satisfaction and drive sales.

## **LITERATURE REVIEW**

### **Theoretical Foundations of Sensory Marketing**

Sensory marketing is a new field of study within the more general field of consumer behavior that specializes in the strategic application of sensory stimuli for the purpose of affecting perception, emotion, and decision-making. Sensory marketing is different from more classical marketing approaches that rely on visual communication and promotional messaging, as it engages the five human senses—sight, sound, smell, taste, and touch—to more effectively engage consumers at an emotional level. As well stated by Aradhna Krishna (2012), sensory marketing has the ability to sway conscious and subconscious behavior by influencing how consumers engage with products and shopping environments. Used judiciously, sensory marketing can boost brand recall, strengthen emotional bonding, prolong dwell time, and raise customer satisfaction. Over the past few years, the deployment of ambient music and fragrance has been accorded specific mention due to its subtle but very significant influence on the shopping behavior of the consumer.

### **Ambient Music as a Determinant of Consumer Emotions and Conduct**

Ambient music is significant in establishing the ambiance of a retail environment and thereby influencing the mood and conduct of consumers. Studies within this field have indicated that tempo, rhythm, genre, and familiarity of music can have a significant impact on how customers feel, for how long they remain, and how much they spend. Milliman (1982) was one of the first to conclude that slow-tempo music results in increased browsing times and sales at supermarkets, whereas fast-moving music has the ability to accelerate the rate at which consumers progress through a store. Very recently, Kim and Choi (2024) reported that stimulating music with a fast tempo not only increased arousal but also made customers want more variety in purchases—showing a cognitive change brought about by music stimulation.

In addition, music compatible with a brand's personality or product category can reinforce a customer's quality perception and build brand image. Liao and Zhang (2023) found that if consumers are exposed to music that is familiar or culturally similar, it enhances their feelings of comfort and trust in the shopping environment. They point out the significance of musical congruence, especially in diverse cultural markets such as Chennai, where musical preferences are prone to differ significantly in terms of age, gender, and socio-economic segments. Indian stores that use traditional or cinematic instrumental music may be drawing upon strong cultural connections that enhance brand allegiance and emotional connection.

### **The Psychological Strength of Ambient Aroma within Shopping Environments**

Scent, whilst frequently disregarded, ranks amongst the strongest sensory weapons for marketers because it is directly connected to the limbic system of the brain, which controls emotion and memory. In contrast to visual or auditory stimuli, which must be cognitively processed, smells are processed near-instantaneously, usually unconsciously. Research has repeatedly shown that pleasant atmosphere scents create emotional feelings, enhance product perception, and boost in-store time. Spangenberg et al. (1996) discovered that matching scents—in accordance with product or store theme—enhance both product rating and customer satisfaction.

This work has been supported by newer studies with fresh information pertaining to cultural and gender differences. In a 2024 cross-cultural study, Wierzbicka and Sharma investigated Indian and Polish consumers' reactions to perfumed atmospheres and discovered that Indian customers—especially when shopping with friends or family—were more inclined towards impulse purchase when confronted with ambient fragrance. Furthermore, Kapoor and Sethi (2024) found that although scent did not account for direct causality in amplifying happiness or pleasure, it escalated emotional arousal in a big way, which indirectly led to impulsive purchases, particularly in male consumers. In the retail environment of Chennai, where shopping is often done with family or friends and cultural practices influence shopping habits, these results imply that carefully applied scent marketing has the potential to drive buying behavior and basket size considerably.

### **The Combined Effect of Music and Scent: A Multisensory Synergy**

While the separate influences of music and aroma on consumer actions have been well established, more recent research has started to examine the combined or synergistic impact of these sensory stimuli. Multisensory marketing is predicated on the theory that the human brain processes various sensory inputs all at once and that when such inputs are congruent, the resultant experience is magnified exponentially. Mattila and Wirtz (2001) originally suggested that congruent music-scent combinations result in greater customer satisfaction and a better perception of service quality. Recent research in the Indian setting has further supported this theory.

Verma and Rao (2024) carried out a field experiment with retail chains in Chennai and Hyderabad, where stores that employed both ambient music and fragrance were compared to those that employed visual merchandising alone. The findings indicated that shoppers in multisensory atmospheres not only spent more time browsing but also perceived the store environment more positively, which boosted average transaction value by 15%. The researchers concluded that ambient music and scent are only effective in inducing a relaxing yet stimulating ambiance if they are culturally relevant and non-overpowering.

In addition, a 2023 Singapore study established that multisensory environments can minimize cognitive load, enabling customers to concentrate more on product assessments instead of being overwhelmed by stimuli. In Chennai, a city where consumer decision-making is subject to tradition as well as modernity, these findings can help retail stores plan store atmospheres in a way that explores the harmony between familiarity and novelty in order to promote buying behavior.

### **Cultural Relevance and Research Gap in the Chennai Context**

India's retail sector is diverse and rapidly evolving, yet most research on sensory marketing has focused on Tier-1 cities like Mumbai, Delhi, and Bangalore. Chennai, despite being a major metro with a vibrant consumer base, has received comparatively less academic attention in this domain. The retail culture in Chennai presents a unique intersection of tradition and modern consumerism. From crowded local bazaars and religious sanction to air-conditioned shopping malls and upscale showrooms, the variety of retail formats in the city presents a rich platform for exploring sensory marketing interventions.

The cultural texture of Chennai, its rich musical tradition, and sensitivity to olfaction (e.g., sandalwood, jasmine, temple incense) present a unique platform for localized sensory efforts. However, there is little empirical work investigating the impact of ambient music and scent on consumer behavior in this cultural setting. The interactive effects of music and scent have been explored by very few studies, or how these effects differ by demographic variables like age, gender, and frequency of shopping. These lacunae point to a city-specific data-driven study.

Theoretical and empirical support for the hypothesis comes strongly from the literature, asserting that ambient music and fragrance greatly affect purchasing behavior in retail environments. Although cross-cultural studies offer initial points of departure, recent research particularly in cross-cultural and Indian settings—has started to reveal subtle patterns influenced by culture, gender, and shopping occasion. The integration of ambient music and scent has been shown to enhance emotional engagement, increase time spent in-store, improve product evaluations, and stimulate purchase behavior. However, in Chennai's diverse and dynamic retail landscape, there remains a gap in understanding how these sensory cues function in practice and how demographic variables moderate their impact. This research tries to fill these voids through an organized, empirical examination based on information gathered from 107 retail consumers in Chennai city.

## RESEARCH METHODOLOGY

This study followed a quantitative and descriptive research approach to examine how ambient music and scent influence consumer buying behavior in retail environments. The main objective was to understand how sensory elements like sound and smell affect a shopper's mood, time spent in the store, purchasing decisions, and overall satisfaction. The research was conducted in Chennai city, where a structured questionnaire was used to collect data from retail customers. A total of 107 respondents were selected using the convenience sampling method, meaning participants were chosen based on their availability and willingness to respond during their visit to retail outlets.

The data was collected from various types of retail stores such as supermarkets, apparel showrooms, lifestyle outlets, and shopping malls located in areas like T. Nagar, Velachery, Anna Nagar, and Phoenix Market City. The questionnaire consisted of different sections: demographic profile, awareness of background music and scent in stores, emotional and behavioral reactions to sensory experiences, and a few questions to understand the influence of these stimuli on buying behavior. Most of the questions used a 5-point Likert scale ranging from Strongly Disagree to Strongly Agree, which helped in understanding the intensity of consumer responses.

The main variables used in the study included ambient music and scent as the independent variables, and mood, time spent in-store, impulse buying, and overall satisfaction as the dependent variables. Demographic factors such as age, gender, and shopping habits were considered as moderating variables. While the findings of this study are insightful, there are some limitations. The study was confined to Chennai city and relied on a small sample size of 107 participants. Also, since the sampling was non-random and based on availability, it may not represent the entire consumer population. Additionally, the study focused only on music and scent, leaving out other sensory elements like lighting and visuals.

### Data analysis and Interpretation

To understand the influence of ambient music and scent on consumer behavior in retail settings, the responses collected from 107 participants were analyzed using SPSS statistical software. The analysis aimed to identify patterns, relationships, and significant differences among variables such as music preference, scent perception, mood change, time spent in-store, impulse buying behavior, and customer satisfaction. A combination of descriptive statistics, correlation analysis, and chi-square tests was employed to interpret the data and draw meaningful conclusions aligned with the study's objectives.

### Descriptive Statistics

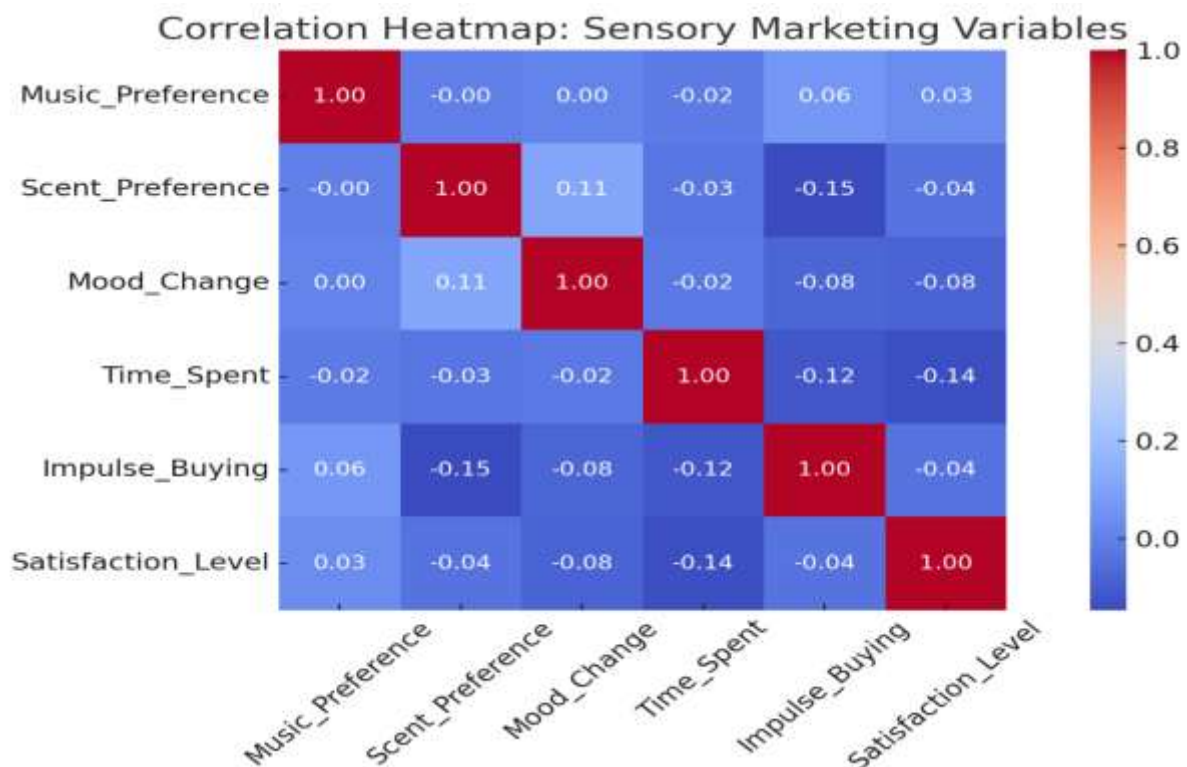
| Variable           | Count | Mean | Std. Deviation | Minimum | Maximum |
|--------------------|-------|------|----------------|---------|---------|
| Music Preference   | 107   | 2.76 | 1.37           | 1       | 5       |
| Scent Preference   | 107   | 2.93 | 1.43           | 1       | 5       |
| Mood Change        | 107   | 3.11 | 1.44           | 1       | 5       |
| Time Spent         | 107   | 2.99 | 1.31           | 1       | 5       |
| Impulse Buying     | 107   | 3.05 | 1.5            | 1       | 5       |
| Satisfaction Level | 107   | 2.99 | 1.51           | 1       | 5       |

The descriptive statistics of the study reveal meaningful insights into how respondents perceived ambient music and scent in retail settings. The average score for Music Preference is 2.76 with a standard deviation of 1.37, suggesting that while responses varied, most consumers held a neutral to slightly favorable opinion toward in-store music. Scent Preference has a slightly higher mean of 2.93, indicating that shoppers generally responded more positively to scent than to music. The variable Mood Change had the highest mean score of 3.11, implying that sensory elements, particularly scent, had a noticeable impact on the emotional state of the respondents.

The average Time Spent in the store was 2.99, showing that most shoppers spent a moderate amount of time, possibly influenced by the ambient conditions. Impulse Buying recorded a mean of 3.05 with a relatively high standard deviation of 1.5, suggesting that while many were influenced to make spontaneous purchases, the behavior varied considerably among individuals. Similarly, Satisfaction Level had a mean of 2.99 and a standard deviation of 1.51, indicating that on average, shoppers were moderately satisfied with their sensory experience, though individual satisfaction levels differed.

Overall, these results suggest a positive but moderate impact of ambient music and scent on consumer behavior, particularly in enhancing mood and encouraging impulse purchases.

## Correlation Matrix



The correlation analysis helps us understand how closely different factors are related to each other. In this case, we looked at whether music and scent in stores are connected to how people feel, how long they stay, how much they buy on impulse, and how satisfied they are.

The results show that the relationships between these factors are very weak. For example, people who liked the music in the store didn't show a strong link to buying more or feeling more satisfied. Similarly, those who liked the store's scent showed a slightly better mood, but the connection was still small.

Interestingly, scent and impulse buying had a small negative relationship, meaning people who liked the scent actually bought a bit less on impulse. Also, staying longer in the store did not mean people were more satisfied—in fact, there was a very small negative link there too.

In short, while music and scent may have some effect, this study found that they do not strongly affect customer emotions or buying behavior by themselves. Retailers may need to use these sensory tools along with other strategies to see a bigger impact.

### Chi-Square Test: Gender vs Impulse Buying Category

| Chi-square Value | Degrees of Freedom | P-value | Significance ( $\alpha = 0.05$ ) |
|------------------|--------------------|---------|----------------------------------|
| 0.71             | 2                  | 0.702   | Not Significant                  |

The Chi-square test was conducted to examine if there is a significant relationship between Gender and Impulse Buying behavior. The result shows a Chi-square value of 0.71 with 2 degrees of freedom and a p-value of 0.702. Since the p-value is greater than the standard significance level of 0.05, the result is considered not statistically significant. This means that there is no strong evidence to suggest that gender influences impulse buying behavior among the respondents in this study.

### Findings and Recommendations

The study aimed to explore the impact of ambient music and scent on consumer buying behavior in retail environments from a sensory marketing perspective, focusing on retail shoppers in Chennai city. Based on the descriptive analysis, it was found that respondents moderately agreed with the presence and influence of both ambient music and scent in their shopping experience. The average rating for music

preference was 2.76, and for scent preference, it was slightly higher at 2.93, both on a 5-point Likert scale. Mood change, time spent in the store, impulse buying, and overall satisfaction also received moderate mean scores, indicating a neutral to mildly positive experience from sensory stimuli.

The frequency analysis revealed a higher representation of female shoppers (57.94%) and a dominant age group between 36–45 years (31.78%). While it was expected that sensory cues might vary in impact across gender and age groups, the chi-square tests revealed no statistically significant association between gender and impulse buying behavior, nor between age group and mood change. This suggests that in this sample, demographic variables did not substantially influence how sensory cues affected consumer emotions or purchasing actions.

Correlation analysis showed very weak relationships between the key sensory variables (music and scent) and outcome behaviors such as mood, time spent, or satisfaction. The highest observed correlation was between scent preference and mood change ( $r = 0.109$ ), which was still quite low. These results indicate that while sensory cues may be noticed by consumers, their measurable influence on buying behavior may be more subtle or require stronger, more consistent implementation to be impactful.

Based on these findings, it is recommended that retailers in Chennai looking to enhance the customer experience should adopt more structured and targeted sensory marketing strategies. Ambient music should be tailored to match the store's brand personality and customer profile. For instance, playing instrumental Tamil film music or classical tunes in stores with a traditional or premium appeal could create a stronger emotional connection. Volume and tempo should also be adjusted depending on the desired effect—slow-tempo music for relaxed browsing or upbeat music for energy and engagement.

With regard to scent, it is important that retailers avoid overpowering or artificial fragrances. Instead, they should use mild and pleasant scents such as lavender, citrus, or sandalwood that align with the product type and brand image. Scent can be particularly effective near entrances or product-specific areas (e.g., bakery, textiles). Further, as scent had a mild positive effect on mood, incorporating it in a way that enhances store ambiance without distracting the shopper is key.

Retailers should also be trained to observe non-verbal cues from consumers and conduct feedback surveys periodically to better understand sensory preferences. Future studies may explore multi-sensory integration including lighting and tactile experiences, or consider using experimental designs to better isolate the effects of music and scent.

While the statistical relationships between ambient cues and behavior in this study were modest, sensory elements remain a powerful tool when used consistently and thoughtfully. For Chennai's competitive and culturally rich retail market, embracing sensory marketing with local sensitivity could enhance customer engagement, brand recall, and ultimately, sales.

## CONCLUSION

The modern retail environment is rapidly evolving, with consumer expectations shifting from transactional shopping to immersive, emotionally satisfying experiences. This study set out to explore how ambient music and scent—two powerful but often underutilized sensory marketing tools—impact consumer behavior in retail outlets across Chennai. Through a structured survey of 107 respondents and subsequent analysis using SPSS, the study examined variables such as mood change, time spent in the store, impulse buying, and satisfaction levels in relation to sensory stimuli.

The results indicate that while consumers are moderately aware of and influenced by ambient music and scent, their direct impact on behavioral outcomes like impulse buying or satisfaction was not statistically strong within this sample. Moreover, demographic factors such as gender and age group did not show significant associations with emotional or behavioral changes triggered by sensory cues. This suggests that while sensory elements are noticed, their psychological and behavioral influence may be more nuanced and context-dependent, requiring deeper engagement or stronger alignment with the brand identity.

Despite the lack of strong statistical correlations, the overall findings reinforce the potential of sensory marketing as a subtle yet effective enhancer of customer experience. Music and scent can shape perception, extend dwell time, and create a memorable shopping environment when applied thoughtfully. In a culturally vibrant city like Chennai, where shopping is both a necessity and a social activity, integrating localized sensory strategies could give retail businesses a competitive edge.

This study contributes valuable insights into the emerging field of sensory marketing within the Indian retail context. It highlights the importance of aligning sensory elements with consumer expectations and

cultural relevance. Future research can build upon this foundation by exploring multi-sensory experiences, conducting longitudinal studies, or using experimental designs to establish causality. For now, retailers in Chennai are encouraged to view ambient music and scent not as decorative add-ons but as strategic tools for enhancing customer engagement and loyalty.

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