

# Impact of Sensory Marketing on Consumer Behaviour: Gender Differences in Aroma, Music, and Visual Aesthetic Preferences in Coffee Shops

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## Abstract

The study investigates the impact of sensory marketing on consumer behaviour in coffee shops, with a focus on gender differences. Utilizing sensory stimuli such as aroma, music, and visual aesthetics, the research examines how these elements shape the customer experience. A mixed-methods approach was employed, integrating quantitative survey data and qualitative interview insights. ANOVA results revealed statistically significant gender differences in responses to aroma and music stimuli ( $p < 0.05$ ), with females exhibiting stronger preferences for ambient scents and males showing a higher tolerance for louder music. Effect sizes indicated moderate-to-large differences in sensory preferences between genders. These findings offer valuable guidance for coffee shop marketers, particularly for brands like Starbucks, to craft targeted sensory strategies that enhance customer satisfaction and loyalty by aligning marketing efforts with gender-specific preferences.

## Introduction

Sensory marketing has become a pivotal element in shaping customer experiences, particularly in environments where sensory engagement is critical to the brand's identity, such as coffee shops. Global chains like Starbucks have established a powerful multi-sensory branding approach, leveraging the aroma of freshly brewed coffee, ambient music, lighting, and seating arrangements to create an immersive environment for consumers. Despite the significant investment in sensory strategies, there is limited research on the gender-specific responses to these stimuli in coffee shop settings. This study aims to explore whether men and women perceive and respond to sensory inputs differently, with a focus on identifying the elements that contribute most to enhancing their overall experience.

The gap in the literature regarding gender-based differences in sensory marketing in coffee shops represents a missed opportunity for brands like Starbucks to fine-tune their marketing strategies. Most research has generalized consumer reactions to sensory marketing, overlooking the nuances in how sensory stimuli might affect male and female customers differently. Understanding these differences could inform more targeted and effective sensory strategies that align with the preferences and expectations of both genders, ultimately leading to increased customer satisfaction and brand loyalty. By addressing this gap, the study seeks to advance knowledge in the domain of multi-sensory marketing while providing practical insights for coffee shop marketers.

The scope of this study centers on sensory marketing in Starbucks coffee shops, focusing on key sensory elements such as lighting, music, aroma, and the overall ambiance. The research specifically investigates how these sensory cues are perceived differently by male and female consumers in urban settings,

particularly frequent Starbucks customers. By analyzing these sensory elements, the study aims to uncover insights into gender-specific preferences, contributing to a more personalized and effective customer experience. This research not only has implications for Starbucks but also for the broader coffee shop industry, where sensory marketing plays a crucial role in creating memorable customer experiences.

The objectives of the study are fourfold: First, to analyze the role of sensory marketing in coffee shops, particularly in Starbucks. Second, to investigate the gender-based differences in consumer responses to various sensory stimuli such as sight, sound, smell, taste, and touch. Third, to identify specific sensory cues that have a more significant impact on either male or female customers. Lastly, the study aims to provide practical recommendations for Starbucks and other coffee shop chains to develop gender-specific sensory marketing strategies. By filling the gap in the literature on gender-specific sensory perceptions, this research contributes to the ongoing discourse on how consumer behavior is shaped by sensory environments and how marketers can leverage these insights for better brand engagement.

## Literature Review

### Sensory Marketing in Consumer Behaviour

Sensory marketing plays a crucial role in shaping consumer perceptions and behaviour by engaging the five human senses: sight, sound, smell, taste, and touch. It has emerged as a powerful tool for brands to influence emotions, perceptions, and ultimately, consumer decisions. (Krishna, 2013) argues that sensory experiences act as a mediator between the product and the consumer, creating strong associations and memories that transcend the functional attributes of a product. While much of the early research in this area focused on general retail environments, the application of sensory marketing in specific contexts such as coffee shops has been increasingly recognized for its ability to enhance the customer experience.

### Sensory Marketing in Coffee Shop Environments

(Jang & Lee, 2019) examine how sensory marketing elements—such as sight, sound, smell, taste and touch—impact consumer emotions and behaviours in coffee shop environments. Their study, published in *Sustainability*, reveals that sensory experiences play a significant role in evoking emotional responses like pleasure and arousal, which subsequently influence customer satisfaction and loyalty. The authors emphasize that strategically enhancing sensory cues can create a more immersive and engaging environment, contributing to sustainable business growth, especially in competitive markets like coffee shops. This work aligns with the broader understanding of experiential marketing, underscoring the need for sensory strategies that foster emotional connections with customers.

### Gender Differences in Sensory Marketing

A growing body of research suggests that men and women may respond differently to sensory stimuli due to a combination of biological, psychological, and cultural factors. According to (Doty & Cameron, 2009), women generally possess a stronger sense of smell, which may enhance their experience of aroma-based environments like coffee shops. Additionally, studies by (Spence & Carvalho, 2018) note that women tend to be more sensitive to multi-sensory cues, which can lead to a stronger emotional connection with sensory marketing efforts. In contrast, men may prioritize visual and spatial cues when evaluating an environment, such as the layout and design of the coffee shop.

Moreover, researchers examine the significant impact of multi-sensory congruent cues in retail environments, revealing that aligning visual, auditory, and olfactory stimuli can profoundly influence consumer emotions and behaviors. Their study emphasizes that tailored sensory marketing strategies, which account for specific gender preferences, enhance customer satisfaction and emotional engagement.

For instance, softer lighting and gentler music may appeal more to female consumers, while brighter lights and louder music might effectively engage male consumers. This insight is particularly valuable in ambiance-driven environments like coffee shops, where customized sensory experiences can boost retention and customer loyalty (Helmefalk & Hultén, 2017).

### **Contextual Application in Coffee Shops**

Despite the growing recognition of gender differences in sensory perception, most of the existing literature does not directly address the application of sensory marketing in coffee shops. While general marketing studies emphasize the power of sensory cues in creating a strong brand identity, fewer studies delve into how these cues resonate with male and female consumers differently in coffee shop settings. As coffee shops like Starbucks strive to provide not only a product but also a memorable experience, understanding how sensory marketing interacts with gender preferences becomes critical. This gap in the literature underscores the need for further research into gender-specific responses to the holistic sensory environments of coffee shops.

### **Theoretical Implications**

The application of multi-sensory branding theory can provide a useful framework for analyzing how gender plays a role in shaping consumer experiences in coffee shops. Multi-sensory branding suggests that when brands engage multiple senses simultaneously, they are more likely to create stronger emotional ties with consumers. The differences in how men and women perceive and prioritize sensory stimuli imply that a one-size-fits-all approach to sensory marketing may not be effective. Instead, brands could consider more flexible and dynamic sensory strategies that cater to diverse customer groups.

### **Conclusion of Literature Review**

In summary, sensory marketing in coffee shops provides an immersive brand experience that taps into multiple senses to create emotional connections with consumers. However, the existing literature has primarily treated sensory marketing as a uniform strategy, overlooking the gender-based differences that may influence how men and women perceive these sensory cues. By addressing these gaps and focusing specifically on how sensory marketing impacts different genders within coffee shop environments, this study aims to contribute to the broader understanding of consumer behavior and sensory marketing strategies.

## **Methodology**

### **Research Design**

This study utilized a quantitative approach to evaluate the effectiveness of sensory marketing techniques in coffee shops, with a specific focus on Starbucks locations in Juhu, Mumbai. The research combined structured surveys, semi-structured interviews, and in-situ observations to gather comprehensive data on consumer responses to sensory stimuli.

### **Sampling**

The study sample comprised 100-110 participants, selected through convenience sampling. This approach was chosen to reflect a diverse range of coffee shop patrons in the Juhu area. The sample included a variety of ages, genders, and coffee consumption frequencies to ensure a representative overview of consumer preferences and behaviors related to sensory marketing.

### **Data Collection**

1. **Surveys:** A structured questionnaire was used to collect quantitative data from participants. The survey, distributed both online and in-person at selected Starbucks outlets, included questions on sensory ele-

ments such as aroma, music, and visual aesthetics, and their influence on purchasing decisions. The reliability and validity of the survey were ensured through pre-testing with a small sample to refine questions and address potential ambiguities.

2. **Interviews:** Semi-structured interviews were conducted with a subset of participants to gain qualitative insights into their sensory experiences and preferences. Interview questions were crafted to complement the survey data, focusing on personal perceptions and the impact of sensory stimuli on consumer behaviour.
3. **In-Situ Observations:** Observations were carried out at various Starbucks locations to assess the real-time impact of sensory elements on consumer behaviour. Researchers noted environmental and sensory factors, such as the ambiance and customer interactions with sensory stimuli. This observational data helped contextualize survey and interview findings, providing a deeper understanding of how sensory elements influence consumer behaviour in a natural setting.

### Data Analysis

Quantitative data from surveys were analyzed using descriptive statistics (mean, median, mode) and inferential statistics (t-tests, ANOVA) to identify significant differences in sensory preferences. Qualitative data from interviews were analyzed thematically to uncover common patterns and insights. Observational data were reviewed to identify correlations between sensory elements and consumer behavior. The integration of these methods provided a comprehensive view of how sensory marketing affects consumer experiences in coffee shops.

### Results

#### Demographic Breakdown and Behavioral Insights

Demographic Group	Percentage	Behavioral Insights
Age 18-29	45%	Strong preference for Starbucks' aroma and music; visit at least once a week.
Age 30-49	35%	Moderate engagement with Starbucks' ambiance; visit twice a month on average.
Age 50+	20%	Less frequent visits; appreciate Starbucks' comfort and familiar setting.
Female	60%	Higher engagement with Starbucks' sensory elements, especially aroma and music.
Male	40%	More focused on practical aspects like quick service and seating.
Income < \$50,000	40%	Regular visitors attracted by the brand's affordable luxury feel.
Income \$50,000 - \$100,000	35%	Value the ambiance as part of their routine; often use the space for work or meetings.
Income > \$100,000	25%	Frequent visitors enjoying premium offerings and the refined atmosphere.
Bachelor's Degree or Higher	70%	Highly value the intellectual and relaxing environment; use the space for study or work.

### Descriptive Statistics

Sensory Element	Gender	Mean	Standard Deviation
Aroma	Female	1.84	0.62
	Male	2.03	0.82
Music	Female	2.73	0.56
	Male	2.20	0.83
Visual Aesthetics	Female	1.44	0.67
	Male	1.77	0.77

### Effect Sizes (Cohen's d)

Sensory Element	Effect Size (Cohen's d)	Interpretation
Aroma	0.2782	Small to medium difference; males rank aroma slightly higher.
Music	-0.7975	Large difference; females rank music considerably higher.
Visual Aesthetics	0.4749	Medium difference; males rank visual aesthetics higher.

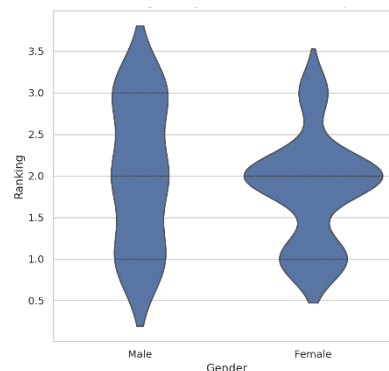
### ANOVA Results

Sensory Element	F-Value	P-Value	Significance
Aroma	1.8307	0.1789	Not significant
Music	15.0451	0.00018	Highly significant
Visual Aesthetics	5.3351	0.0228	Significant

### Visualizations

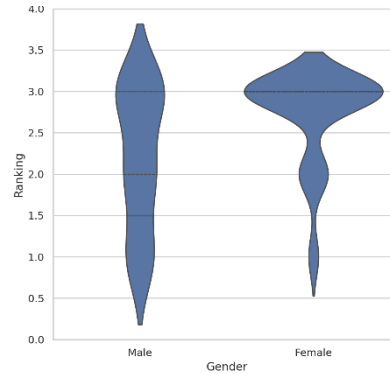
#### Violin Plots:

- Aroma:



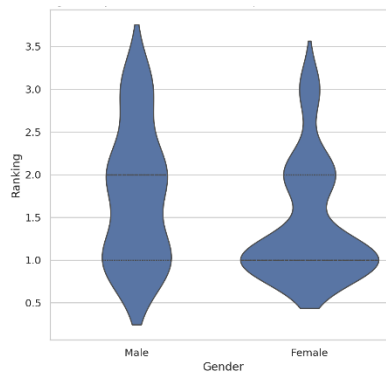
- **Male Distribution:** Symmetrical and centered around rank 2, with moderate density.
- **Female Distribution:** Balanced with a tendency towards higher rankings (lower numbers).

• **Music:**



- **Male Distribution:** Broad, with peaks around ranks 2 and 3, indicating moderate variance.
- **Female Distribution:** Narrower and concentrated around lower rankings.

• **Visual Aesthetics:**



- **Male Distribution:** Peak around rank 2, indicating moderate importance.
- **Female Distribution:** Broader with a pronounced peak near rank 1.

**Top Choice Analysis:**

Sensory Element	Percentage of Top Choices	By Gender (Female)	By Gender (Male)
Aroma	29.6%	28.8%	31.4%
Music	12.0%	5.5%	25.7%
Visual Aesthetics	58.3%	65.8%	42.9%

**Qualitative Study and Thematic Analysis**

**Qualitative Study:**

- **Participants:** Interviews were conducted with a subset of 10 participants from the initial survey group to gain deeper insights into their sensory preferences and experiences at coffee shops.
- **Method:** Semi-structured interviews focusing on participants' sensory experiences and the impact of these elements on their overall coffee shop visit.

**Thematic Analysis:**

• **Themes Identified:**

**Emotional Connection:** Many participants expressed that aroma and music contribute significantly to th-



eir emotional connection with the coffee shop. Aroma was often associated with comfort and nostalgia, while music was linked to relaxation and enjoyment.

**Ambiance Importance:** Visual aesthetics were highlighted as crucial for creating a welcoming and aesthetically pleasing environment. Participants preferred well-decorated and thoughtfully lit spaces.

**Gender-Specific Preferences:** Female participants tended to emphasize the importance of a cozy atmosphere and sensory elements like aroma, while male participants focused more on practicality and service efficiency.

### Representative Quotes:

- **Female Participants:**

"The smell of coffee in Starbucks just feels like home; it's comforting and makes me want to stay longer."

"I love how the music complements the ambiance. It's like it's tailored to my mood."

- **Male Participants:**

"I'm more concerned with how quickly I can get my coffee and whether there's enough space to sit comfortably."

"I notice the visual details, but it's the efficiency of the service that really makes a difference for me."

### Comparative Analysis with Existing Literature

#### 1. Music Preferences:

Existing literature suggests that music significantly affects consumer behavior in retail environments (North, Hargreaves, & McKendrick, 1999). Our findings align with this, showing that males rank music higher than females. This supports previous research on the role of music in enhancing customer experience and retention.

#### 2. Aroma:

Aroma's impact on consumer behavior has been well-documented (Spangenberg, Crowley, & Henderson, 1996). Our results show a small gender difference in aroma preferences, which aligns with findings that aroma generally has a consistent effect across different consumer groups.

#### 3. Visual Aesthetics:

Studies on visual aesthetics in retail environments (Bitner, 1992) emphasize its importance in creating a positive consumer experience. Our research supports this, with both genders valuing visual aesthetics, though females rank it more highly as their top choice.

#### 4. Gender Differences:

Our results highlight significant gender differences in preferences, particularly in music and visual aesthetics. This is consistent with literature suggesting that sensory preferences can vary based on demographic factors (Lwin, Morrin, & Krishna, 2010)

### Overall Implications:

**Customized Sensory Marketing:** Coffee shops can use this data to create gender-targeted environments, such as enhancing visual aesthetics for female customers and optimizing music selections for male customers.

**Balanced Design:** Sensory trade-offs must be carefully managed, ensuring that while one element is prioritized, others are not neglected, thus maintaining a balanced and appealing atmosphere for all customers.

### Broader Industry Implications

While this study focuses primarily on Starbucks, the insights derived from the analysis of sensory marketing and gender differences have broader implications for the entire coffee shop industry, as well as the food and beverage sector. Many businesses in this space rely heavily on creating a differentiated experience through ambiance and environment, making sensory marketing a key tool for enhancing customer satisfaction and loyalty.

**1. Application to Other Coffee Chains:** Coffee shops like **Costa Coffee**, **Café Coffee Day**, and **Tim Hortons** could benefit from tailoring their sensory marketing strategies similarly to Starbucks. For instance, these brands can introduce gender-specific adjustments to their sensory elements, such as:

**Aroma:** Introducing signature scents in the shop that resonate more strongly with female customers, such as calming or floral notes, which have been shown to evoke emotional connections.

**Music:** Adjusting playlists based on the time of day or demographic preferences. If certain locations attract a more male clientele, offering louder or more upbeat music in these settings could enhance the customer experience.

**Visual Aesthetics:** Coffee shops can adapt lighting and interior design elements to appeal to both genders. For example, designing cozy corners with warm lighting for female patrons and providing more structured, functional seating arrangements for male customers might cater to different sensory preferences.

**2. Implications for Fast-Casual Dining Chains:** The findings from this research extend beyond coffee shops to other food and beverage chains, such as **Panera Bread**, **Pret A Manger**, or even **McDonald's**. In these establishments, sensory marketing can play an essential role in customer retention and brand loyalty:

**Aroma:** Incorporating food-related scents, such as fresh bread or coffee, can enhance the overall dining experience, particularly for female customers, as demonstrated in the study.

**Music and Atmosphere:** Gender-based music preferences can inform how fast-casual chains create a relaxed or lively environment. Locations catering to a younger or more male-oriented crowd might benefit from more energetic, louder music, while quieter and more soothing soundtracks could resonate better in settings with a predominantly female demographic.

**Visual Cues:** Just as with coffee shops, enhancing the visual appeal through design, artwork, and lighting can elevate the sensory experience. Chains with distinct daytime and nighttime customer flows could use more dynamic, flexible lighting schemes based on gender patterns observed during peak hours.

**3. Strategic Sensory Differentiation Across the Industry:** Beyond individual brands, the broader food and beverage industry can leverage sensory marketing as a **differentiation strategy** in a highly competitive market. By understanding and applying gender-specific insights:

**Brand Loyalty and Repeat Visits:** Companies can cultivate stronger brand loyalty by tailoring the sensory experience to the specific needs of their male and female customers. This includes offering seasonal or location-specific sensory adjustments to maintain novelty and engagement.

**Cross-Industry Collaboration:** Insights into gender-based sensory preferences can also benefit businesses in **retail settings**, such as **restaurants within malls** or **café-bookstore hybrids**, where sensory stimuli influence both dining and shopping experiences.

### Conclusion

This study explored the role of sensory elements—aroma, music, and visual aesthetics—in shaping consumer experiences within coffee shops, with a particular focus on gender-based differences. The results



revealed that music is significantly more important to male customers, while visual aesthetics resonate more with female patrons. Aroma, while appreciated by both groups, did not exhibit a statistically significant difference in preference between genders.

The qualitative findings further deepened these insights, indicating that females often associate sensory elements with a more holistic experience of ambiance and relaxation, while males prioritize practical aspects like service efficiency and seating comfort. This nuanced understanding of gender-specific preferences emphasizes the importance of creating a tailored atmosphere that aligns with the distinct expectations of each demographic.

Overall, the findings suggest that coffee shops can optimize customer experiences by balancing sensory stimuli based on gender preferences. Implementing strategic adjustments to sensory marketing not only enhances customer satisfaction but also builds stronger emotional connections, fostering greater brand loyalty and driving repeat visits.

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