

Impact of Sensory Marketing on Purchase Decisions among Generation Z Consumers

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DOI : <https://doi.org/10.5281/zenodo.18950265>

ARTICLE DETAILS

Research Paper

Accepted: 25-02-2026

Published: 10-03-2026

Keywords:

*Sensory Marketing,
Generation Z, Purchase
Behaviour, Consumer
Decision-Making,
Multisensory Experience*

ABSTRACT

In contemporary competitive markets, firms increasingly rely on experiential strategies to differentiate their brands and influence consumer behaviour. Sensory marketing, which involves stimulating consumers' visual, auditory, olfactory, tactile, and gustatory senses, has emerged as a strategic tool for shaping perceptions and purchase responses. This study investigates the impact of sensory marketing on purchase decisions among Generation Z consumers. A quantitative research design was adopted, and primary data were collected from 200 respondents aged between 18 and 27 years through a structured questionnaire using a five-point Likert scale using convenience sampling. Statistical tools including reliability analysis, correlation, and multiple regression were applied to test the proposed hypotheses. The findings indicate that sensory marketing significantly affects purchase decisions, with visual and auditory stimuli exerting the strongest influence. Gustatory stimuli also demonstrate notable impact, while tactile and olfactory cues show moderate but significant effects. The study contributes empirical evidence on multisensory marketing effectiveness within the Gen Z segment and provides actionable insights for marketers seeking to enhance engagement and conversion.

1. Introduction

Marketing practices have evolved considerably over the past few decades. Earlier approaches largely emphasized product attributes, price competitiveness, and promotional messaging. However, in highly



saturated markets, functional differentiation alone is insufficient to influence consumer choice. Modern consumers increasingly value experiences, emotional engagement, and sensory stimulation.

Sensory marketing has emerged as a strategic response to this transformation. It refers to the deliberate use of sensory cues—such as visual design, music, scent, texture, and taste—to create memorable and persuasive brand experiences. These stimuli influence consumer perceptions at both conscious and subconscious levels, shaping attitudes and ultimately purchase behaviour.

Generation Z represents one of the most influential and rapidly growing consumer segments globally. Born into a digitally connected world, Gen Z consumers are accustomed to multimedia content, interactive platforms, and visually dynamic environments. Their decision-making patterns are shaped not only by rational evaluation but also by experiential and emotional triggers.

Despite the growing application of sensory marketing in retail and digital environments, empirical research focusing specifically on its impact on purchase decisions among Generation Z remains limited. Most existing studies examine individual sensory elements or focus on impulse buying rather than structured purchase decisions.

Therefore, the present study seeks to examine how five sensory marketing dimensions—visual, auditory, olfactory, tactile, and gustatory stimuli—affect purchase decisions among Generation Z consumers.

2. Theoretical Framework

This study is grounded in the Stimulus–Organism–Response (S–O–R) model. The S–O–R framework proposes that environmental stimuli influence internal cognitive and emotional states, which subsequently lead to behavioural responses.

In this research:

- Sensory stimuli represent the “Stimulus”
- Consumer perception and evaluation represent the “Organism”
- Purchase decision represents the “Response”

According to this model, sensory inputs do not directly cause purchase behaviour; rather, they first affect internal psychological states such as mood, attention, and perceived value. These internal reactions then shape behavioural outcomes.



By applying this theoretical lens, the study examines whether sensory stimuli serve as significant predictors of purchase decisions among Gen Z consumers.

3. Literature Review

3.1 Concept of Sensory Marketing

Sensory marketing refers to the strategic use of sensory stimuli—visual, auditory, olfactory, tactile, and gustatory—to influence consumer perception, emotions, and behavioural responses. Unlike traditional marketing approaches that rely primarily on informational appeals, sensory marketing emphasizes experiential engagement that stimulates multiple senses simultaneously. According to Hultén et al. (2021), multisensory strategies enhance brand differentiation by creating memorable consumer experiences. Similarly, Spence and Piqueras-Fiszman (2021) argue that sensory inputs shape product evaluation and influence decision-making processes by affecting cognitive and emotional responses.

The theoretical foundation of sensory marketing is commonly explained through the Stimulus–Organism–Response (S–O–R) framework, which posits that environmental stimuli influence internal psychological states, leading to behavioural outcomes. In retail and digital contexts, sensory cues function as stimuli that trigger emotional and cognitive reactions, ultimately affecting purchase behaviour (Patel & Sharma, 2021).

3.2 Visual Stimuli and Purchase Decisions

Visual stimuli are considered the most dominant sensory factor in consumer decision-making. Elements such as colour schemes, lighting, packaging design, layout, and digital aesthetics significantly influence consumer perception and attention. Research indicates that visual appeal enhances perceived product quality and brand value (Kim & Lee, 2024).

Almeida et al. (2023) found that visually stimulating online environments increase impulsive buying behaviour, particularly among younger consumers. Similarly, Kim and Lennon (2020) reported that digital visual cues significantly influence purchase intentions among Generation Z consumers. Given that Gen Z frequently interacts with visually driven social media platforms, visual sensory marketing strategies are likely to exert a strong influence on their purchasing behaviour.



3.3 Auditory Stimuli and Consumer Behaviour

Auditory marketing involves the use of music, sound branding, and ambient audio elements to influence consumer mood and behaviour. Background music has been shown to affect shopping pace, time spent in stores, and overall expenditure. Ghosh et al. (2023) demonstrated that music tempo and genre significantly influence emotional arousal and purchasing decisions.

In digital retail settings, auditory cues enhance brand recall and engagement (Cui & Chen, 2021). For Generation Z consumers, who consume audio-visual content extensively, auditory elements may reinforce brand identity and strengthen purchase intentions.

3.4 Olfactory Stimuli and Atmospheric Influence

Olfactory marketing focuses on the use of scent to create a favorable shopping atmosphere. Research suggests that pleasant ambient scents enhance consumer mood, increase dwell time, and improve store evaluation (Wang & Li, 2022). Scent-based marketing can also create strong memory associations that influence repeat purchases.

Although olfactory marketing is more commonly associated with physical retail environments, its psychological impact extends to overall brand perception. For young consumers, immersive and pleasant sensory environments may enhance emotional engagement, thereby influencing purchase decisions.

3.5 Tactile Stimuli and Product Evaluation

Tactile engagement refers to physical interaction with products, including texture, weight, and material feel. Physical contact enhances perceived product quality and reduces uncertainty during evaluation. Wei et al. (2022) found that tactile interaction significantly increases satisfaction and purchase confidence among young consumers.

Even in online retail contexts, interactive visualization tools simulate tactile experiences, thereby improving perceived product reliability. Patel and Sharma (2021) suggest that enhanced sensory engagement strengthens consumer trust in digital environments.

3.6 Gustatory Stimuli and Experiential Consumption

Gustatory stimuli are particularly influential in food and beverage industries. Taste experiences create emotional associations and strengthen brand loyalty. Spence and Piqueras-Fiszman (2021) highlight that



taste perception is influenced by complementary sensory elements such as visual presentation and ambient sound.

For Generation Z consumers, experiential sampling and shareable consumption experiences significantly influence buying behaviour. Integrated sensory experiences, particularly in food-related contexts, may therefore play a critical role in shaping purchase decisions.

3.7 Generation Z and Sensory Responsiveness

Generation Z consumers are characterized by digital nativity, strong visual orientation, and preference for immersive experiences. Kim and Lennon (2020) found that digital sensory stimuli significantly influence impulse buying behaviour among Gen Z consumers. Jain and Kaur (2022) further report that this cohort prefers interactive and sensory-rich social commerce platforms.

Ahmed and Kim (2024) suggest that high social media exposure enhances heuristic-based decision-making among young consumers. Additionally, Singh and Srivastava (2022) indicate that emotional triggers intensify purchasing behaviour among youth segments.

These findings suggest that sensory marketing strategies may exert a particularly strong influence on Generation Z purchase decisions.

3.8 Research Gap

Although previous studies have examined sensory marketing and consumer behaviour, several gaps remain evident. First, many studies focus on individual sensory dimensions rather than examining the collective impact of all five senses. Second, limited research specifically analyzes the direct influence of sensory marketing on purchase decisions among Generation Z consumers. Third, existing literature often emphasizes impulse buying rather than structured purchase decisions.

Therefore, this study aims to address these gaps by empirically examining the impact of visual, auditory, olfactory, tactile, and gustatory stimuli on purchase decisions among Generation Z consumers using a comprehensive regression-based model. Moreover, limited empirical evidence exists within the Indian context, further justifying the present investigation

4. Research Objectives and Hypotheses

4.1 Research Objectives



1. To examine the impact of visual stimuli on purchase decisions among Generation Z consumers.
2. To analyze the influence of auditory stimuli on purchase decisions.
3. To determine the effect of olfactory stimuli on purchase decisions.
4. To evaluate the impact of tactile stimuli on purchase decisions.
5. To assess the influence of gustatory stimuli on purchase decisions.

4.2 Hypotheses

H1: Visual stimuli significantly influence purchase decisions among Generation Z consumers.

H2: Auditory stimuli significantly influence purchase decisions among Generation Z consumers.

H3: Olfactory stimuli significantly influence purchase decisions among Generation Z consumers.

H4: Tactile stimuli significantly influence purchase decisions among Generation Z consumers.

H5: Gustatory stimuli significantly influence purchase decisions among Generation Z consumers.

5. Variables Under Study

Independent Variable (IV) = Sensory Marketing

It has 5 dimensions:

1. Visual Stimuli
2. Auditory Stimuli
3. Olfactory Stimuli
4. Tactile Stimuli
5. Gustatory Stimuli

Dependent Variable (DV) : Purchase Decision

This includes:

- Buying intention
- Actual purchase behavior
- Preference for brand
- Impulse purchase tendency

6. Research Methodology

6.1 Research Design



The study adopts a quantitative cross-sectional research design, appropriate for examining relationships between variables using statistical analysis.

6.2 Sampling

A sample of 200 Generation Z consumers aged 18–27 years was selected using convenience sampling. This approach was chosen due to accessibility and time constraints.

6.3 Instrument Development

The questionnaire was developed based on established literature. Each sensory dimension was measured using multiple items. Purchase decision was measured through behavioural intention and likelihood statements.

6.4 Validity and Reliability

Content validity was ensured through literature review. Reliability was tested using Cronbach's Alpha.

6.5 Data Analysis Techniques

- Descriptive Statistics
- Reliability Analysis
- Correlation Analysis
- Multiple Regression

7. Data Analysis and Interpretation

This section presents the statistical analysis conducted to examine the impact of sensory marketing dimensions on purchase decisions among Generation Z consumers. The data were analyzed using SPSS. Reliability, correlation, and multiple regression analyses were performed to test the proposed hypotheses.

7.1 Respondent Profile

A total of 200 valid responses from Generation Z consumers (aged 18–27 years) were analyzed. The sample consisted of 54% female and 46% male respondents. The majority were undergraduate students (68%), followed by postgraduates (22%) and young professionals (10%), ensuring adequate representation of the target population.



7.2 Reliability Analysis

Cronbach's Alpha was used to assess the internal consistency of the constructs. As shown in Table 1, all variables recorded alpha values above the recommended threshold of 0.70, confirming the reliability of the measurement scale and suitability for further analysis.

Table 1 Reliability Statistics

<i>Construct</i>	<i>Cronbach's Alpha</i>
Visual	0.82
Auditory	0.79
Olfactory	0.76
Tactile	0.74
Gustatory	0.80
Purchase Decision	0.85

7.3 Correlation Analysis

Pearson's correlation analysis revealed positive and statistically significant relationships between all sensory marketing dimensions and purchase decision ($p < 0.01$), as presented in Table 2. Visual ($r = 0.62$) and auditory stimuli ($r = 0.59$) demonstrated relatively stronger associations with purchase decision compared to other sensory dimensions.

Table 2 Correlation Matrix

<i>Variables</i>	<i>Purchase Decision</i>
Visual	0.62
Auditory	0.59



Olfactory	0.41
Tactile	0.38
Gustatory	0.57

Note: $p < 0.01$

7.4 Multiple Regression Analysis

Multiple regression analysis was conducted to determine the predictive power of sensory marketing dimensions on purchase decision. The model was statistically significant ($F = 48.21$, $p < 0.001$) and explained 55% of the variance in purchase decision ($R^2 = 0.55$; Adjusted $R^2 = 0.53$), indicating strong explanatory power.

As shown in Table 3, visual stimuli ($\beta = 0.33$) emerged as the strongest predictor, followed by auditory ($\beta = 0.28$) and gustatory stimuli ($\beta = 0.24$). Olfactory and tactile stimuli also showed statistically significant but comparatively moderate effects.

Table 3 Regression Results

<i>Independent Variable</i>	<i>β</i>	<i>p-value</i>
Visual	0.33	0.000
Auditory	0.28	0.000
Olfactory	0.17	0.004
Tactile	0.15	0.015
Gustatory	0.24	0.000

$N = 200$

$R^2 = 0.55$



Adjusted $R^2 = 0.53$

$F = 48.21$

$p < 0.001$

The findings confirm that sensory marketing significantly influences purchase decisions among Generation Z consumers. Accordingly, all hypotheses (H1–H5) are supported.

8. Discussion

The present study examined the impact of sensory marketing dimensions on purchase decisions among Generation Z consumers. The findings indicate that sensory marketing significantly influences purchase behaviour, with the regression model explaining 55% of the variance in purchase decisions. This demonstrates the strong predictive power of multisensory marketing strategies within this generational segment.

Among the five sensory dimensions, visual stimuli emerged as the strongest predictor of purchase decision. This result reflects the digital orientation of Generation Z, who are highly responsive to visually engaging content across social media platforms and online retail environments. The finding reinforces the view that visual appeal, product aesthetics, and interface design play a crucial role in shaping consumer attention and buying intention.

Auditory and gustatory stimuli also showed significant positive effects on purchase decisions, suggesting that sound elements and taste experiences enhance brand engagement and consumption likelihood. Although olfactory and tactile stimuli exhibited comparatively moderate effects, they remained statistically significant, indicating that physical sensory experiences continue to influence decision-making, even among digitally active consumers.

The positive relationships between all sensory dimensions and purchase decision support experiential marketing theory, which posits that consumer choices are influenced by emotional and sensory engagement rather than purely rational evaluation. Overall, the findings highlight the strategic importance of integrating multisensory elements in marketing efforts targeting Generation Z consumers.

9. Implications of the Study

9.1 Theoretical Implications



This study contributes to sensory marketing literature by empirically demonstrating that different sensory dimensions significantly influence purchase decisions among Generation Z consumers. The findings support experiential marketing theory by confirming that sensory engagement plays a vital role in shaping consumer decision-making. The stronger impact of visual and auditory stimuli suggests that sensory effectiveness may vary across generational cohorts, particularly among digitally oriented consumers. By examining each sensory dimension separately, the study adds clarity to the understanding of multisensory marketing within a generational context.

9.2 Managerial Implications

The findings provide practical guidance for marketers targeting Generation Z. Since visual and auditory stimuli emerged as strong predictors of purchase decisions, businesses should focus on visually appealing branding, engaging digital content, and effective audio branding strategies. Retailers can further enhance consumer engagement through multisensory experiences such as interactive displays and ambient elements. Overall, adopting an integrated sensory marketing approach can strengthen emotional connection and improve purchase intention among Generation Z consumers.

10. Limitations

This study has certain limitations. First, the research employed a cross-sectional design, which limits the ability to draw causal conclusions over time. Second, the sample was confined to Generation Z consumers within a specific geographic area, which may affect the generalizability of the findings.

11. Conclusion

The present study examined the impact of sensory marketing dimensions on purchase decisions among Generation Z consumers. The findings confirm that sensory marketing significantly influences buying behaviour, with visual, auditory, and gustatory stimuli emerging as key determinants. The regression results demonstrate that multisensory strategies explain a substantial proportion of variation in purchase decisions, highlighting the importance of experiential engagement in contemporary marketing environments.

The study underscores that Generation Z consumers, while digitally oriented, remain responsive to both digital and physical sensory cues. Visual and auditory elements play a dominant role due to increased



exposure to multimedia content, whereas olfactory and tactile stimuli continue to contribute meaningfully in physical retail contexts.

Overall, the research reinforces the strategic relevance of integrated sensory marketing approaches in influencing consumer decision-making. By empirically validating the multidimensional impact of sensory stimuli within a generational framework, the study provides valuable insights for both academic research and marketing practice. This study extends sensory marketing research by integrating all five sensory dimensions within a unified empirical framework focused specifically on Generation Z consumers, thereby offering a structured predictive model rather than examining isolated sensory effects.

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