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A Study on the Impact of Background Music on Customer Experience in Departmental Stores.

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Abstract

In organized retail in India, competition is moving away from range and price towards the quality of the shopping experience and background music is one of the few ambient cues which the store manager can influence without significant cost. Evidence for understanding the reactions of shoppers in India towards such cues is scarce and limited to a single city or format. This paper presents an exploratory, cross-sectional study of 209 shoppers in Bengaluru who had visited departmental stores and shopping malls that have background music. A ten-item, five-point Likert scale instrument assessed three constructs, namely customer mood, shopping relaxation and store memory along with six categorical items pertaining to music preferences and stay duration. The instrument had high reliability (Cronbach's $\alpha = 0.939$) and all three constructs received very good responses (means 4.42 to 4.53 on a 5 point scale). Majority of the respondents (87.6%) reported being happy while hearing music while shopping. Customer mood accounted for 73.9% of the variation in shopping relaxation ($\beta = 0.860$, $p < 0.001$) and the three constructs were highly correlated ($r = 0.768$ to 0.860). There was a significant difference in responses according to the income per month as well as age groups ($p < 0.001$), wherein the highest earning group (earning above ₹50,000, $n = 13$) had the lowest scores, but not for occupation for mood and relaxation. Since this is a correlation study, with self-reporting and no no-music group, the results indicate how shoppers perceive music. However, the results seem to indicate the use of music as an inexpensive way to attract customers.

Keywords: background music; customer experience; retail atmospherics; shopping relaxation; store memory; departmental stores; consumer behaviour; India

1. Introduction

There has been a continuous growth of malls and organized departmental stores in India, and customers evaluate a retail store not only on the basis of its product line and price range but also on the shopping experience it provides. There are many aspects of shopping experience that retailers could control, but music is one of the easiest aspects to control because the shop can control the selection, tempo, and volume at very low marginal cost.

The theoretical framework employed in this case is the Stimulus-Organism-Response (S-O-R) model of Mehrabian & Russell (1974) as modified for application to the retail sector by Kotler (1973). According to this model, environmental stimuli are processed by the organism (in this case, the consumer), resulting in pleasure, arousal and comfort among other internal states that influence behavior. In this study, the stimulus is music while the internal states of interest include the consumer's mood and shopping relaxation.

Most of the literature on the effect of retail music is based on research conducted in Western countries and East Asia; literature from India is scarce and largely local. This study contributes to this gap in knowledge through a survey of consumers in Bengaluru. Four specific goals have been set for this study: To find out whether background music leads to (1) a better mood in customers, (2) more relaxed and less stressful shopping, and (3) enhanced store recall, and (4) whether there are any differences in responses between demographic subgroups.

2. Literature Review and Hypotheses

2.1 Music, mood and relaxation

Experimental research and studies conducted in the field of retail have proven time and again that music is effective in setting emotional tone for consumers. According to Dad et al. (2018), music had a significant effect on increasing consumer enjoyment and approach behavior in a virtual 3D store while arousal did not have any effect on consumer behavior. Anwar et al. (2020) mentioned that music and color had a positive effect on influencing consumer emotion in a simulated online store. Biswas, Lund & Szocs (2019) noted that the presence of a quieter ambience created by low sound level induced consumers to make healthier eating decisions, while the opposite resulted in excitation and unhealthy decisions.

2.2 Tempo, congruence and perception of the store

The characteristics of music have just as much importance as the music itself. Septyowati et al. (2024) found that music with a slower tempo increased the tendency for careful browsing in grocery stores, whereas Sun, Chang, and Xu (2023) found that faster music increased arousal and variety seeking. In a field experiment that involved 140 stores, Krywuczky et al. (2025) found that slow music positively impacted sales in loyalty programme customers. Choo et al. (2021) established that effects depended on tempo, genre, and congruency with the business. Doucé et al. (2022) found that congruent music facilitated browsing by an experiential shopper, while incongruent music affected negatively goal-oriented buyers. More studies relate music to shoppers' perception of the retail environment, products, and tempo and loudness (Ovali, 2019; Sbai, Bahoussa and Gerard, 2022; Schorn, Abfalter and Brunner-Sperdin, 2024), as well as the condition of guests in service organisations (Chen et al., 2023). The place of playing music is also important in live-stream commerce (Zhang, Guo and Li, 2023). Becker and Jaakkola (2020) conducted a review of 136 articles, describing customer experience as multidimensional and context-driven, and calling for research that isolates individual factors, such as music.

2.3 Evidence from India and the research gap

Behera et al. (2023) concluded that atmospherics affect the performance of the retailer and consumer behavior in the physical retail sector in India. Bandwal, Tripathi and Singh (2022) conducted an empirical study of 288 consumers in fashion shops of Udaipur and revealed that in-store music is positively related to consumers' shopping experience. Khan et al. (2023) examined the impact of in-store music on the purchase decision through structural equation modeling with 100 respondents from Delhi-NCR and established that store atmosphere and design have an impact on the purchase decision while music, lighting, and signage have less impact individually.

Combined, however, the Indian investigations consider only individual cities or format types, and no study evaluates the independent measurement of mood, shopping stress, relaxation and store memory using an itemized scale in departmental stores. Moreover, none investigate differential effects according to income, age and occupation. This leads to the following hypotheses.

2.4 Hypotheses

- **H1:** Background music is significantly associated with customers' mood during shopping.
- **H2:** Background music is significantly associated with reduced shopping stress and a more relaxed shopping environment.
- **H3:** Background music is significantly associated with customers' memory of the store.
- **H4:** Customers' response to background music differs significantly across demographic subgroups (income, age).

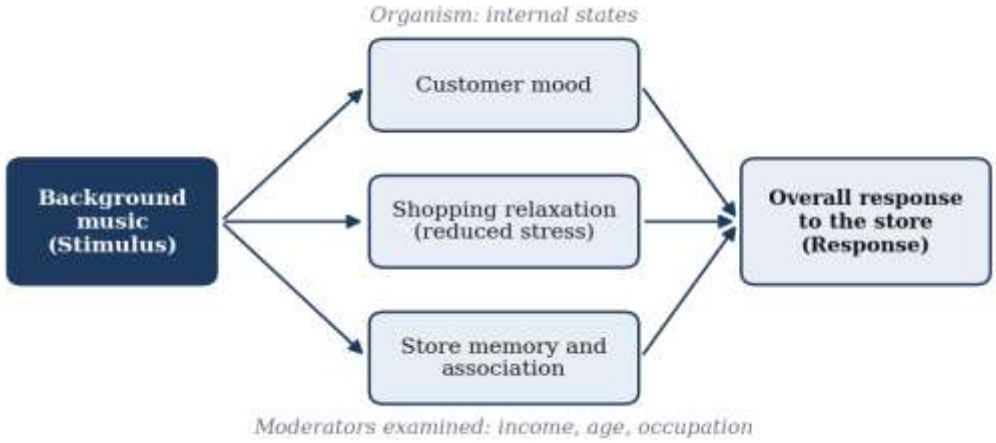


Figure 1. Conceptual framework based on the S–O–R model

3. Research Methodology

3.1 Design and sampling

A descriptive, quantitative, and cross-sectional approach to the study involving a structured questionnaire was used in the research. The study population consists of adult shoppers that have shopped at an organised departmental store or mall playing background music within the vicinity of Bengaluru. There was no information regarding the number of participants. Therefore, the minimum sample size (n) = $Z^2p(1-p)/e^2$ where Z = 1.96 (confidence level of 95%), p = 0.5, and e = 0.07, resulting to 196 participants.

3.2 Instrument

The questionnaire consisted of two sections. Section A was for collecting information about age category, gender, occupation, and monthly salary, which acted as grouping variables. The B section was composed of six categorical questions (Q7-Q12) asking about the emotion elicited by music, type of music preference, importance of the music, what relaxes customers the most, emotions experienced in a store without music, and time spent shopping, with ten five-point Likert scale questions (Q13-Q22; 1=strongly disagree, 5=strongly agree). Using reliability analysis, the five-point Likert scale questions were divided into three sub-scales: Customer Mood (4 questions), Shopping Experience/Relaxation (3 questions), and Store Memory (3 questions).

3.3 Analysis

The data were analyzed using SPSS 27. The reliability was measured by calculating Cronbach's alpha. Descriptive statistics and frequencies were calculated in addition to performing one-sample t-test against the neutral value (3.0), correlation analysis, simple linear regression of relaxation with mood, and one-way ANOVA with Tukey's post hoc test for income, age, and occupation.

4. Results

4.1 Reliability and descriptive statistics

All ten items together had $\alpha = 0.939$, and all sub-scales had values greater than 0.80 (Table 1). Means for individual items were between 4.25 and 4.56, and standard deviations were between 0.66 and 0.74.

Table 1. Reliability and descriptive statistics of the study constructs (n = 209)

Construct	Items	Cronbach's α	Mean	SD
Customer Mood	4	0.820	4.42	0.55
Shopping Experience / Relaxation	3	0.862	4.53	0.59
Store Memory and Association	3	0.866	4.47	0.65
Overall Music Response (Q13–Q22)	10	0.939	4.47	0.56

4.2 Customer mood (H1)

Customer Mood sub-scale was 4.42 (SD = 0.55). Of the dichotomous item related to emotions when listening to music in a store (Q7), 87.6% of participants indicated being happy, 9.6% were neutral, whereas just 2.8% were indifferent or irritable (Table 2, Figure 2a).

Table 2. Feeling on hearing music while shopping (Q7)

Response	Frequency	Percentage
Happy	183	87.6%
Neutral	20	9.6%
Indifferent	3	1.4%
Irritated	3	1.4%
Total	209	100.0%

4.3 Shopping relaxation (H2)

The highest mean score was reported for the Shopping Experience/Relaxation sub-scale (4.53, SD = 0.59). In the simple linear regression, customer mood became a very good predictor of the level of relaxation (Table 3): alone it accounted for 73.9% of the variance in relaxation ($R^2 = 0.739$, $F(1, 207) = 586.487$, $p < 0.001$) and had a standardised coefficient of 0.860. As can be seen from Figure 2b, music (71.8%) was the major cause of relaxation in Q10, compared to atmosphere (23.9%) and the behaviour of the employees (4.3%).

Table 3. Regression of shopping relaxation on customer mood

Statistic	Value
R	0.860
R^2	0.739

Adjusted R^2	0.738
Unstandardised coefficient (B), Customer Mood	0.933
Standardised coefficient (β)	0.860
F(1, 207)	586.487
Significance (p)	< 0.001

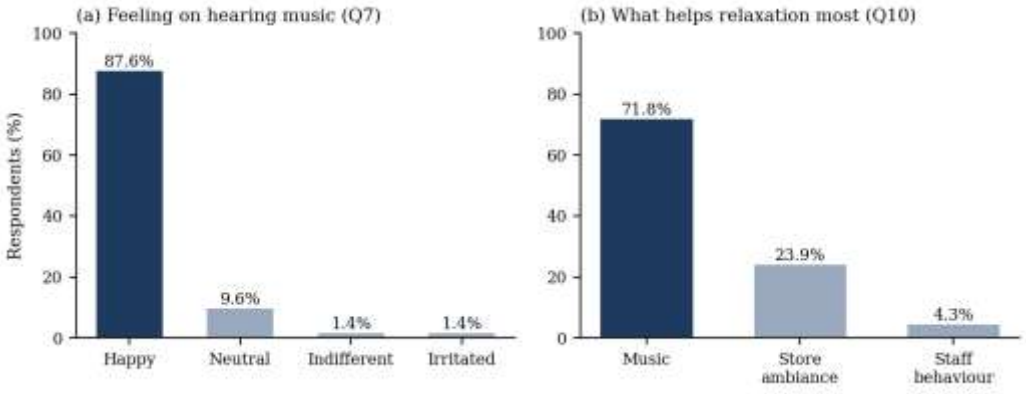


Figure 2. Distribution of responses: (a) feeling on hearing music while shopping (Q7); (b) factor that helps customers feel relaxed most (Q10)

4.4 Store memory (H3)

Scores on the Store Memory scale were 4.47 (SD = 0.65, α = 0.866). The participants believed that certain stores would evoke certain music, and music could aid their memory in recollecting a shopping trip, and they could more readily remember stores with good music.

4.5 Relationships among constructs

The correlations between all of the constructs were positive and statistically significant at $p < 0.001$ (see Table 4). Among the three sub-scales, the correlations varied from r = 0.768 (mood and store memory) to r = 0.860 (mood and relaxation). The correlations of the Overall Response composite were in the range 0.926 to 0.959 with its own components; however, these correlations are biased because they include the sub-scales.

Table 4. Pearson correlation matrix among study constructs (all p < 0.001)

Construct	Overall Response	Customer Mood	Relaxation	Store Memory
Overall Response	1.000	0.938	0.959	0.926
Customer Mood	0.938	1.000	0.860	0.768
Shopping Exp. / Relaxation	0.959	0.860	1.000	0.857
Store Memory	0.926	0.768	0.857	1.000

4.6 Differences by demographic subgroup (H4)

A one-way ANOVA found significant differences on all three constructs according to monthly income as well as age group (Table 5). Tukey post-hoc analysis revealed that those earning more than ₹50,000 per month (n=13) had significantly lower scores on mood, relaxation and store memory compared to all other income groups, but there were no significant differences among the lower income groups. Occupation had no significant effect on mood ($F = 1.296$, $p = 0.273$) and relaxation ($F = 0.758$, $p = 0.554$), but only a slight effect on store memory ($F = 3.191$, $p = 0.014$).

Table 5. One-way ANOVA of study constructs by monthly income and age group

Construct	Income F(3, 205)	p	Age F(4, 204)	p
Customer Mood	6.229	< 0.001	8.056	< 0.001
Shopping Exp. / Relaxation	8.663	< 0.001	9.759	< 0.001
Store Memory	7.488	< 0.001	10.393	< 0.001

4.7 Preferences and stay duration

Of all the participants, 61.7% found slow or calming music when shopping, while more than 70% of respondents believed that music was very important to create a good shopping experience. When answering question 12, 72.2% of respondents stated that they stayed 20 minutes or longer in a shop with pleasant music (50.2% of respondents stayed for 20–30 minutes and 22.0% of respondents stayed for more than 30 minutes), whereas 16.7% of respondents stayed less than 10 minutes.

Table 6. Summary of hypothesis testing

Hypothesis	Key evidence	Decision
H1	87.6% happy; Mood mean = 4.42 (SD 0.55)	Supported (descriptive evidence)
H2	$R^2 = 0.739$ (regression on mood); Relaxation mean = 4.53; 71.8% cite music as the main aid to relaxation	Supported
H3	Store Memory mean = 4.47 (SD 0.65); $\alpha = 0.866$	Supported (descriptive evidence)
H4	ANOVA significant by income and age ($p < 0.001$); not by occupation for mood and relaxation	Supported for income and age

Note: H1 and H3 rest on descriptive evidence (agreement levels and frequencies); the one-sample and regression tests relate to H2.

5. Discussion

Findings support the S–O–R approach to the shopping environment. Consumers who experience music are happy (87.6%) and there is a close correlation between their mood and feeling relaxed ($\beta = 0.860$), which is exactly the same pleasure-to-approach pathway explained by Dad et al. (2018). The preference for slow or relaxing music (61.7%) and long periods of stay correspond to the results of Septyowati et al.

(2024) and Krywuczky et al. (2025) on slow tempos, even though the present study cannot prove whether it was tempo that led to longer stay periods.

The store memory finding builds on the Indian studies that have focused mainly on purchase decisions and general perceptions (Bandwal, Tripathi, & Singh, 2022; Khan et al., 2023; Anute, 2024). The consumers relate the stores to the music they hear at those places. This indicates that a systematic music identity can be helpful in remembering. This supports Becker and Jaakkola's (2020) concept of music being one of many cues.

The discrepancies in income levels and ages show that there is no uniformity in response. The lowest scores shown by those shoppers with an income level higher than ₹50,000 could be due to varying perceptions of the environment of the store, although this may be considered tentative since there were only 13 participants in that category.

5.1 Managerial implications

- Think of music as something that is to be managed within the retail environment: Select a calming playlist as a standard because it aligns with consumer preference and relaxation results.
- Have a musical identity across stores for a certain brand for association and memory purposes.
- Consider conducting trials on different playlists based on segments such as young consumers and those who have high incomes, whose reactions vary from the mean.
- Also, pay attention to the sound level and compatibility with the store format due to the warnings in the literature (Behera et al., 2023; Doucé et al., 2022).

6. Limitations and Future Research

There are several limitations. Firstly, convenience sampling from one city (n=209) affects generalizability. Secondly, the cross-sectional design based on self-reports captures perceived but not real outcomes; therefore, it demonstrates correlation rather than causality, as there is no control group without exposure to music. Thirdly, the Likert-type questions used have positive wording and were answered by individuals who all had some prior experience of music in stores, which may be associated with their predisposition to answer positively and give similar responses; furthermore, answers close to the highest scale level make the distribution very narrow. Fourthly, the tempo, type and volume of music was not quantified. Fifthly, sample size of some subgroups is rather low (e.g., n=13 for income above ₹50,000).

For future research, one should conduct experiments on multiple cities and through the use of stratified sampling technique; conduct experiments involving varied tempos, genres, and volume to prove causation; include behavioural measures such as dwell time and basket value in addition to subjective measurements; and test for music format congruity and brand-music congruity effects (Sbai, Bahoussa and Gerard, 2022; Krywuczky et al., 2025).

7. Conclusion

For the sample of consumers from Bengaluru, background music is highly correlated with positive mood and pleasant experience in addition to store memory and these three reactions co-vary. Positive mood alone explains about three-fourths of the variance in pleasantness. Responses differ by income and age, but not occupation. These results have implications for Indian retailers in terms of using music as a cost-effective and malleable component of the experience to be designed carefully and tested with specific customer segments in future experiments.

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