

ABSTRACT

Today, visiting a restaurant is considered as a leisure activity and a social experience. Restaurants are complex urban spaces that appeal to all the five senses. The comfort level of the patrons during the entire dining experience is determined by the quality of the interior sound environment along with other components. Soundscape affects diners' overall satisfaction with the restaurant and influences their behavioural intentions like repurchase, revisit and recommendation.

Need for the Study

Sound is a multi-facet phenomenon. It is observed after extensive literature review that the majority of the soundscape research is concentrated on physical sound parameters even if the term is popular across disciplines. It is also quite evident in the literature that restaurant sound creates a huge impact in diners' overall experience (Tarlao et al., 2021; Steffens et al., 2021). In order to determine the perceptual quality of soundscape in restaurants and its elements, it is crucial to study soundscape from diners' perspective. Therefore, it is vital to comprehend how people perceive the sound sources and level of loudness in restaurants and whether or not these perceptions, when combined with other elements of the restaurant servicescape, affect patrons' overall satisfaction. Music is a significant component of the restaurant soundscape and can be used to design or modulate the soundscape. The significance of music in restaurants and specially increasing use of live music in restaurants led to the comparison of live music with pre-recorded music in shaping the experience of the diners. In most of the cases music in restaurants is played on the choice of the staff or operator. However, to understand the perception on and preference for different music, research on restaurant music in terms of patron preferences is necessary in developing such strategies (Rohrmann, 2012). Additionally, for balancing sustainability and development and for economic gains, there is a rise of culinary tourism (Ranteallo & Andilolo, 2017), specially opening up of ethnic restaurants in every corner claiming to provide an authentic experience. Exploring this issue from the perspective of ethnic music in ethnic restaurants encourages further research in this direction. Again, another important issue related to restaurant's sonic environment is the noise. Constant exposure to noise leads to auditory or non-auditory effects (Mehrotra et al, 2024). This can affect the overall dining experience in the restaurant. A detailed analysis will help the marketers in understanding the sources of

noise, its levels and its management and the entire soundscape. In order to address the above issues this study aims at achieving the following objectives.

Research Objectives

- 1) To determine the role of music in diner experience.

Role of live music in creating a positive customer experience is explored as a part of this objective. A comparison is also made between live and pre-recorded music on diners' experience. The role of ethnic music in diners' experience is also being assessed as a part of this objective.

- 2) To measure the effect of noise in the restaurant on visitor's experience. Through this objective the impact of noise in overall satisfaction of diners are determined. An attempt is also made to find out if music can play some role in noise avoidance as a part of this objective.

Scope and Limitations

Academic Scope-Diners in this study are those customers who have visited the restaurants for eating out. This study considers family restaurant, premium casual dining restaurants as well as fine dining restaurants. For the purpose of this study the term 'restaurant' includes family restaurants serving (options) minimum 3 course meals to its guests.

Geographic Scope- In the study, seven major urban centres of the urban agglomerates under the General Administrative Divisions of Assam viz; Tezpur, Guwahati, Dibrugarh, Tinsukia, Silchar, Nagaon and Jorhat are included. These urban areas are chosen because previous research of the same kind indicates that eating out is more common among urban residents, where affordability and disposable income are relatively high (Bren d'Amour et al., 2020; Kalita & Sarma, 2017; Patgiri, 2020). A survey is conducted in all the 7 urban centres. Experiment is only conducted in Guwahati, Tezpur and Jorhat based on certain inclusion criteria and FGDs are covered online with participants from Guwahati and Tezpur.

Like other academic research, this study is also not free from flaws and loopholes. The first limitation is that it is only conducted in selective restaurant category and not covers café, pub etc.-Then, the majority of the respondents in the study encountered a setting where live music was not present therefore; their preference for live music may also

vary. And since the data is collected from only Assam thus, its applicability may not be called for generalization.

Research Methodology

The study is primarily carried out to find out the influence of the soundscape in restaurant in diners' experience. In light of this, three different research approaches are taken as pillars- a survey, an experiment and two Focus Group Discussions. The role of music and noise is determined with the help of a survey. The congruency between ethnic music with ethnic food is examined by way of an experiment in real life setting i.e., ethnic restaurants. Lastly, to validate and correlate the research findings from the survey and experiment, two FGDs are conducted. The survey data is gathered by using quota sampling from 824 respondents dining in restaurants serving three course meals from Guwahati, Jorhat, Tezpur, Tinsukia, Dibrugarh, Nagaon and Silchar of Assam which are comparatively considered as urban locations having quite a good number of restaurants. Before collection of final data for survey, a pilot survey with 50 samples was conducted in Guwahati, Jorhat and Tezpur in order to determine the feasibility of the study and get feedback on the structure of the research instruments. The four scales used in the instruments reveal a Cronbach's alpha value above 0.7 which is considered as an acceptable level (Tavakol & Dennick, 2011), except one at .68. The scores based on the 20 statements of the Weinstein's Noise Sensitivity Scale, modified for restaurant settings by the author is used to calculate noise sensitivity. For experiment, the restaurants serving Assamese cuisine, Bodo cuisine, Naga cuisine and Bengali cuisine (all ethnic cuisines in respective restaurants) are considered and the data is collected from two sets- Intervention Group (50 subjects) and Control Group (50 subjects). The intervention group termed as Ethnomusicological Group (EG) is exposed to instrumental music excerpts representing "Assamese," "Bodo," "Naga," and "Bengali" music, and the control group is exposed to mainstream Bollywood instrumental music. The study includes 21 participants in Focus Group Discussions and are determined by purposive sampling. These FGDs acted as a base for triangulation of the findings from different approaches.

Findings

Survey: It is found that the diners' perception of the sound environment is not only influenced by the conviviality of the ambience or attention to music alone but by the combined effects of both. The most pleasant assessments of the sound environment are

linked to the welcoming ambience. Even mild or passive awareness of the music enhances perceptions of the sound environment making the experience a pleasant, calm, eventful, less annoying, less chaotic and less monotonous one compared to complete disengagement with music. Paying attention to music enhances dining euphoria, particularly for diners with higher satisfaction levels. Although, satisfying restaurant experience alone does not directly affect sonic flavor perception but attention to music influences the perception of sonic flavors. Apparently, the volume of music and not the tempo influences the level of music experienced in the restaurant. Despite the diners enjoy live music in general; they mostly tend to prefer it during special occasions. It is also found that the diners prefer pre-recorded music over live music while dining. However, they prefer pre-recorded music and live music over no music at all.

Other than music, the restaurant soundscape is primarily influenced by kitchen sounds, followed by interactions among co-diners and background noises emanated from dragging of furniture to fans or electronic devices etc. Diners' overall experience of noise is impacted by their level of noise sensitivity. High noise sensitive diners like restaurants with a set volume, which can be built up by pre-recorded music. Diners who are moderate and highly sensitive towards noise avoid live music condition in restaurant.

Restaurant patrons who are highly sensitive to noise prefer music as a thin linen to mask the unwanted and undesirable sounds. They are fairly certain that listening to music will enhance their experience. This finding indicates that music plays the role of a noise avoider in context of the study.

Experiment: It is found that ethnic instrumental music in the restaurant is associated with the food served in the ethnic restaurant. It is found that there is a strong musical fit with Assamese cuisine, Bodo cuisine, Naga cuisine and Bengali cuisine with the ethnic instrumental music respectively. There exists a strong value of ethnic music while consuming ethnic food in a restaurant on enhancement of the dining experience. The presence of ethnic music enhances the authenticity of the ethnic restaurant. Customers are willing to pay more because of the presence of ethnic music. Hence, it is established that the presence of ethnic music builds a congruency effect with the ethnic restaurants and elevates the overall dining experience.

FGDs: The focus group discussions basically revealed that both positive and negative emotions and reactions can be evoked by sound. More than half of the restaurants are

unsure about the selection of music. To enhance the dining experience, music selections should complement the meal and the entire ambiance. This is not only applicable to ethnic restaurants but also all the restaurant. It is found that participants were very conscious about the presence of noise in the restaurant. They claimed that everybody experiences noise from different sources and at different intensities. Sometimes music becomes a noise if the volume is raised up. However, sometimes music can be enjoyable and eventful that other noises are ignored.

Triangulation: The meta inferences and joint displays highlight how some the three sets of findings converge, diverge, complements and expands in itself. This triangulation of findings of FGD with survey and experiment reflects neutrality or unerring nature of the findings of the work in totality.

Contribution to the Body of Knowledge

The present study represents a significant advancement in the field of soundscape research within the restaurant businesses. The main goal is to broaden the understanding of how diners' experiences get impacted by the sound environment in restaurants, creating new grounds by building upon the conceptual work. The study while identifying the impact of conviviality and attention to music on the perceptual rating of the sonic quality in restaurants specifies which factor is crucial in determining the perceptual feature of sonic environment. The present study has also explored the different sound sources which are categorized as pleasant, unpleasant and neutral sound by the diners themselves. In the available literature attempts were made to find out the sources but categorization was not made by the subjects themselves. The study, based on earlier research modified the Weinstein's Noise Sensitivity Scale and adopted it for further analysis and identified levels of noise sensitivity of diners. The study used a mixed method approach for fulfilling its objectives. Triangulation of the findings of the three approaches – FGD, Survey and Experiment happens to strengthen the knowledge base of the soundscape research in restaurants. In addition to this integration by narratives and joint display along with meta inferences is one of the major contributions of this research.

Managerial Implications

The auditory environment of the restaurant is critical in itself (Lindborg, 2016). Therefore, managers need to acknowledge the every big to small detail in the servicescape to provide overall satisfaction of the dining experience. Restaurateurs specially need to take care of the sonic environment for a better dining experience.

As far as live music is concerned, although diners prefer live music but restaurants may prioritize live performances during holidays or celebratory seasons to cater to the need of a diverse diner base and add to the total ambience.

Results show that the more sensitive a person is to noise, the more likely he/she to pay attention to or notice music while eating. Even, they prefer loud volume to cover the noise created by other sound sources. Restaurateurs may use this insight while using music to combat the negative sound bites.

Positive reactions from diners towards the interplay of ethnic music and ethnic food may generate a profound psychological bond which can be used by the marketers to define and re-define their strategies to earn more profit.

Scope for Future Research

It's important to acknowledge that the soundscape study is still an unexplored field of study (Refer to Chapter 2 and Chapter 7). As an initial step towards a more thorough understanding of consumer behaviour in relation to a sound environment, our research paves the way for future, larger research endeavours at different study areas with diverse culture with different methodologies.

Studies meant for restaurant employees who are on regular basis exposed to that environment may also be carried out. Experiments could also be conducted to measure noise in real settings to gain more insight.

Overall, this study provides a proper understanding of soundscape in restaurants and the role and effects of its sources in terms of music and noise. Sound influences our overall evaluation of the environment while dining in a restaurant. It can be concluded by saying that music does play an important role in the assessment of the entire dining experience. In fact, flexible soundscapes are required in restaurants to accommodate

diners with varying sensitivity levels to make the overall dining experience a favourable one for all.

References

- Bren d'Amour, C., Pandey, B., Reba, M., Ahmad, S., Creutzig, F., & Seto, K. C. (2020). Urbanization, processed foods, and eating out in India. *Global Food Security*, 25, 100361. <https://doi.org/10.1016/j.gfs.2020.100361>.
- Kalita, K., & Sarma, M. K. (2017). "Eating out" as lifestyle: Yielding to the impulsive temptation. *SCMS Journal of Indian Management*, 14(4), 76-94.
- Lindborg, P. (2016). A taxonomy of sound sources in restaurants. *Applied Acoustics*, 110, 297–310. <https://doi.org/10.1016/j.apacoust.2016.03.032>.
- Mehrotra, A., Shukla, S. P., Shukla, A. K., Manar, M. K., Singh, S. K., & Mehrotra, M. (2024). A comprehensive review of auditory and non-auditory effects of noise on human health. *Noise & Health*, 26(121), 59–69. https://doi.org/10.4103/nah.nah_124_23.
- Patgiri, R. (2022). Changing food habits of urban middle-class youth in India: 'Ordering in'. *South Asia Research*, 42(3), 327-342. <https://doi.org/10.1177/02627280221105133>.
- Rohrmann, B. (2012). Soundscapes in public places: Profile and synopsis of an interdisciplinary research project on the impact of loud music. Project "Soundscapes in Public Places" - Profile & Synopsis. <https://www.rohrmannresearch.net>
- Steffens, J., Wilczek, T., & Weinzierl, S. (2021). Junk food or haute cuisine to the ear? Investigating the relationship between room acoustics, soundscape, non-acoustical factors, and the perceived quality of restaurants. *Frontiers in Built Environment*, 7. <https://doi.org/10.3389/fbuil.2021.676009>.
- Tarlao, C., Fernandez, P., Frissen, I., & Guastavino, C. (2021). Influence of sound level on diners' perceptions and behavior in a Montreal restaurant. *Applied Acoustics*, 174, 107772. <https://doi.org/10.1016/j.apacoust.2020.107772>.
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>.