

**The Challenges of Noise Hazard on Itinerant Workers in the Urban
Landscape of Lagos**

PhD Research Proposal

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Introduction

Lagos, Nigeria, is one of the fastest-developing cities in Nigeria in terms of urbanisation and industrialization (Adedini, 2023). The purpose of this study is to look at itinerant workers and explore the impact being created by noise on their health, considering the bustling metropolis. The rationale for conducting this research comes from the World Health Organisation (2020), according to which prolonged exposure levels could lead to adverse health effects, among which the common ones include elevated stress levels, sleep disturbances, and cardiovascular issues. It is critical research, as the Lagos State Environmental Protection Agency, or LASEPA (2019), recently informed us about the higher noise level in the city as compared to the previous decade. This surge is quite obvious given the increasing usage of transportation and expanding industries within the city area. Agbiboa (2022) agrees with this aspect and compels paying attention to the needs of itinerant workers in Lagos by putting an emphasis on their health-related impacts as a result of elevated noise levels. This community of itinerant workers in Lagos is already quite vulnerable because of their work nature, and their health condition might be affected further due to the elevated noise levels in the city.

Aim:

To assess the impact of environmental noise on the health and well-being of itinerant workers in Lagos, Nigeria.

Objectives:

- To quantify and analyse the levels of environmental noise at various locations frequented by itinerant workers in Lagos.
- To explore the subjective experiences and perceptions of itinerant workers regarding environmental noise and its impact on their health.
- To utilize the rate of exposures to determine mitigative and corrective actions to be employed by the impacted workers in the assessed areas.
- To explore the adequacy of the coping mechanisms deployed by itinerant workers in response to the environmental noise exposure.

- To develop noise level maps using the environmental noise levels determined at the locations assessed.

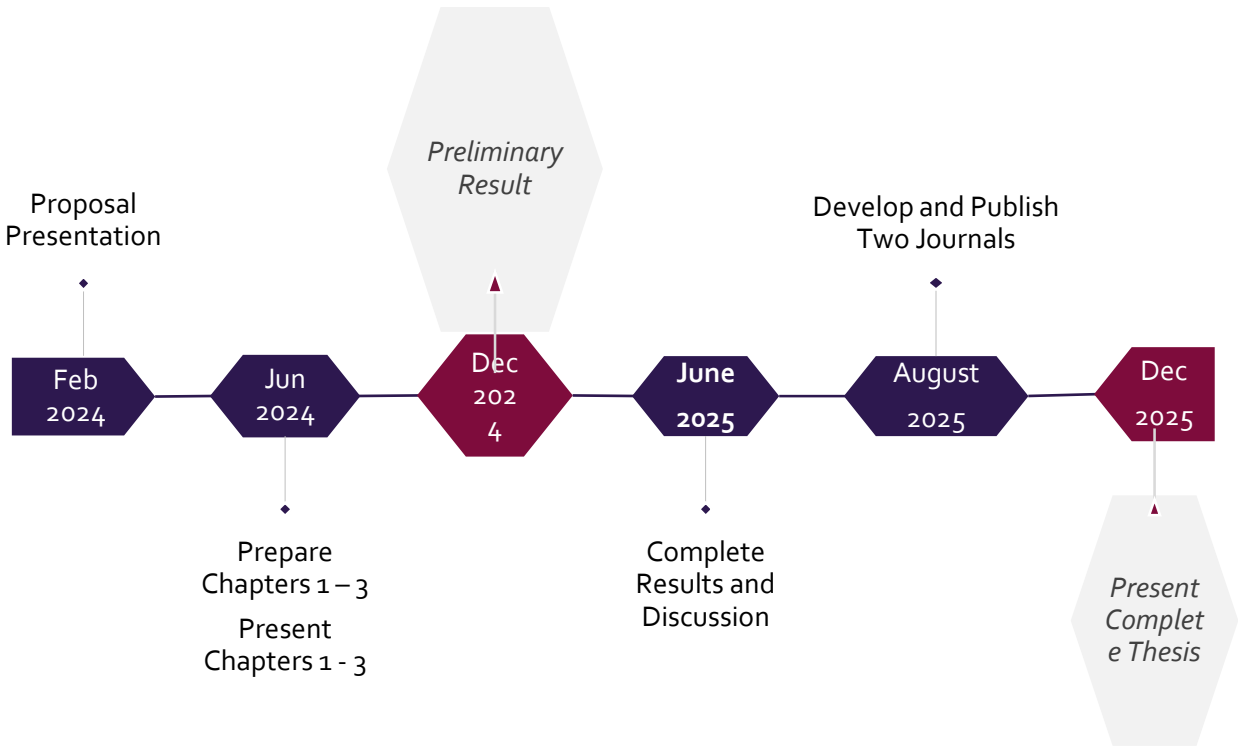
Literature Review

According to Afolabi (2021), noise pollution in urban areas tends to create a wide range of health drawbacks for individuals, raising the need for specific interventions for the targeted community. It is possible to understand this aspect by using the social-ecological model presented by Bronfenbrenner (1979), which argues that individual characteristics, environment, and community tend to have a considerable impact on individuals' health. This framework shall involve the consideration of noise pollution impacting the wellbeing of itinerant workers in Lagos. A study conducted by Adebisi et al. (2020) highlights the need to conduct research over health hazards in Nigeria by putting a major focus on vulnerable communities. This study extends the same research by highlighting the complexities created as a result of noise pollution for itinerant workers in Lagos.

Research Methodology

This research study will be completed using a mixed-methods research approach. The research involves quantitative data, such as sound levels, in twenty key locations within the city, while the qualitative data shall be captured by conducting in-depth interviews with itinerant workers in Lagos to understand their experience (Saunders et al., 2019). Purposive sampling shall be used here to collect responses from the participants or itinerant workers from different locations to ensure holistic findings. All the ethical aspects, such as anonymity, informed consent, and others, shall be adhered to in the research (Kruger and Mitchell, 2019). The data analysis shall be carried out using thematic analysis techniques, followed by a critical discussion with the inclusion of statistics to meet the targeted objectives.

Research Timeline



References

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Chapter 1: Introduction

1.1 Background of the Study

In the bustling urban landscape of Lagos, Nigeria, environmental noise pollution has emerged as a significant public health concern. The cacophony of sounds emanating from traffic, street vendors, construction activities, and other sources creates a constant backdrop that envelops the city. Amidst this urban symphony are Itinerant Workers, a group of individuals who traverse the city streets daily in search of livelihood opportunities.

Itinerant Workers, also known as mobile workers or informal laborers, are a common sight in Lagos. They engage in a variety of activities such as street vending, artisanal work, transportation services, and other forms of informal labor. These workers move from place to place, setting up temporary workstations in busy public spaces such as markets, bus stops, and street corners. Their transient nature exposes them to the vagaries of the urban environment, including environmental hazards like noise pollution.

The World Health Organization (WHO) recognizes environmental noise as a leading environmental health risk, with adverse effects on physical and mental well-being. Prolonged exposure to high levels of noise has been linked to a range of health issues, including cardiovascular diseases, sleep disturbances, cognitive impairment, and stress-related disorders. While research on noise pollution in urban areas is abundant, there is a paucity of studies focusing specifically on the impact of noise on Itinerant Workers in Lagos.

1.2 Statement of the Problem

The urban landscape of Lagos presents a unique set of challenges for Itinerant Workers, chief among them being the omnipresent noise hazard. The clamor of traffic, honking of horns, blaring music, and shouting of vendors create a sonic environment that permeates the daily lives of these workers. The consequences of prolonged exposure to high noise levels are manifold, affecting not only their physical health but also their mental well-being and overall quality of life.

Despite the inherent risks posed by environmental noise, there is a notable gap in research addressing the specific challenges faced by Itinerant Workers in Lagos. Understanding how noise pollution impacts the health and well-being of these workers is essential for developing targeted interventions and policies to mitigate its adverse effects. By addressing this gap in knowledge, this study aims to shed light on the intersection of noise hazard and vulnerable occupational groups in the urban landscape of Lagos.

1.3 Research Objectives

Objective 1: To quantify and analyze the levels of environmental noise at various locations frequented by Itinerant Workers in Lagos.

Understanding the baseline noise levels at key locations where Itinerant Workers operate is essential for assessing their exposure to environmental noise. By quantifying noise levels using sound level meters and other measurement tools, this objective aims to provide a comprehensive overview of the acoustic environment in which Itinerant Workers navigate daily.

Objective 2: To explore the subjective experiences and perceptions of Itinerant Workers regarding environmental noise and its impact on their health.

Beyond objective measurements, this objective seeks to delve into the lived experiences of Itinerant Workers in relation to noise pollution. Through qualitative research methods such as

interviews and focus group discussions, the study aims to capture the nuanced perspectives, attitudes, and coping strategies of Itinerant Workers towards environmental noise exposure.

Objective 3: To determine mitigative and corrective actions based on the rate of exposures in assessed areas.

Building upon the insights gained from quantitative and qualitative data, this objective aims to identify actionable steps to reduce noise exposure for Itinerant Workers in high-risk areas. By correlating exposure levels with health outcomes and worker experiences, the study seeks to propose targeted interventions and strategies to ameliorate the impact of noise hazard on Itinerant Workers.

Objective 4: To assess the adequacy of coping mechanisms used by Itinerant Workers in response to environmental noise exposure.

Itinerant Workers often develop coping mechanisms to deal with the challenges of their work environment, including noise pollution. By evaluating the effectiveness and sustainability of these coping strategies, this objective aims to provide insights into the resilience and adaptive capacity of Itinerant Workers in the face of environmental stressors.

Objective 5: To develop noise level maps using the environmental noise levels determined at the assessed locations.

Visualizing the spatial distribution of noise pollution is essential for understanding the patterns of exposure and identifying hotspots of high noise levels. By creating noise level maps based on the data collected at various locations, this objective aims to provide a geospatial perspective on the prevalence of noise hazard in the urban landscape of Lagos.

1.4 Research Questions

1. What are the environmental noise levels at locations frequented by Itinerant Workers in Lagos?
2. How do Itinerant Workers perceive and experience environmental noise in their work environments?
3. What are the mitigative and corrective actions that can be implemented to reduce noise exposure
4. How effective are the coping mechanisms deployed by Itinerant Workers in response to environmental noise?
5. How can noise level maps be developed to visualize noise pollution in the assessed areas?

1.5 Scope of the Study

This study will focus on Itinerant Workers in selected areas of Lagos, Nigeria, where noise levels will be measured and workers' perceptions will be assessed. The research will cover a range of work environments frequented by Itinerant Workers, including markets, bus stops, and other public spaces.

1.6 Significance of the Study

Understanding the impact of noise hazard on Itinerant Workers in Lagos is essential for informing policies and interventions to protect the health and well-being of these vulnerable populations. The findings of this study can contribute to the fields of public health, urban planning, and occupational safety, ultimately leading to a healthier and more sustainable urban environment for all residents.

Chapter 2: Literature Review

2.1 Overview of Environmental Noise Pollution

- Define environmental noise pollution and its sources.
- Discuss the characteristics and effects of noise pollution on human health.
- Provide general statistics or trends related to noise pollution in urban areas globally.

2.2 Impact of Noise Pollution on Health

- Explore studies and research on the physical and psychological health effects of noise pollution.
- Discuss how prolonged exposure to high noise levels can lead to stress, sleep disturbances, cardiovascular issues, and other health problems.
- Highlight specific health risks associated with noise exposure for vulnerable populations like Itinerant Workers.

2.3 Itinerant Workers and their Vulnerability

- Define Itinerant Workers and their characteristics.
- Discuss the unique challenges faced by Itinerant Workers in urban environments, including exposure to environmental hazards like noise pollution.
- Review existing literature on the health and well-being of Itinerant Workers in relation to environmental factors.

2.4 Coping Mechanisms for Noise Exposure

- Identify and discuss coping mechanisms commonly employed by individuals exposed to environmental noise.

- Examine the effectiveness of different coping strategies in mitigating the negative effects of noise pollution on health.
- Evaluate the relevance of existing coping mechanisms for Itinerant Workers in the context of urban noise hazards.

2.5 Previous Studies on Noise Pollution in Urban Areas

- Summarize key findings from previous research studies on noise pollution in urban areas.
- Compare and contrast methodologies, results, and conclusions from relevant studies.
- Identify gaps in the existing literature that the current study aims to address.

2.6 Theoretical Framework

- Introduce theoretical perspectives or frameworks relevant to understanding the impact of noise pollution on human health.
- Discuss how theories of environmental psychology, public health, or urban planning can inform the study of noise hazards on Itinerant Workers.
- Justify the chosen theoretical framework and its application to the research objectives of the thesis.

Chapter 3: Methodology

3.1 Research Design

For this study, a mixed-methods research design will be employed to comprehensively assess the impact of environmental noise on the health and well-being of Itinerant Workers in Lagos. The combination of quantitative data on noise levels and qualitative data on workers' perceptions will provide a holistic understanding of the issue.

3.2 Sampling Strategy

The target population will consist of Itinerant Workers in various locations across Lagos. A stratified random sampling technique will be used to select representative samples from different categories of Itinerant Workers based on their work activities and locations. A total of 200 Itinerant Workers will be included in the study.

3.3 Data Collection Methods

- Quantitative Data Collection: Environmental noise levels will be measured using sound level meters at multiple locations frequented by Itinerant Workers, such as markets, bus stops, and street corners. Measurements will be taken at different times of the day to capture variations in noise levels.
- Qualitative Data Collection: Semi-structured interviews and focus group discussions will be conducted with Itinerant Workers to explore their subjective experiences, perceptions of noise hazards, and coping mechanisms. Open-ended questions will be used to encourage detailed responses.

3.4 Data Analysis Techniques

- Quantitative Data Analysis: Noise level data will be analyzed using statistical software to calculate average noise levels, identify hotspots of high noise exposure, and compare noise levels across different locations. Descriptive statistics and GIS mapping will be used to visualize the data.
- Qualitative Data Analysis: Thematic analysis will be employed to analyze interview transcripts and focus group discussions. Themes related to the impact of noise on health, coping strategies, and suggestions for mitigation will be identified and coded for interpretation.

3.5 Ethical Considerations

Prior to data collection, ethical approval will be sought from the relevant institutional review board. Informed consent will be obtained from all participants, ensuring their voluntary participation and confidentiality of data. Participants will be informed of their rights to withdraw from the study at any time without consequences.

3.6 Limitations of the Study

- Sample Size: The sample size of 200 Itinerant Workers may not represent the entire population accurately.
- Data Collection Challenges: Weather conditions and environmental factors may impact the accuracy of noise level measurements.
- Generalizability: Findings may be specific to the context of Lagos and may not be fully generalizable to other regions.

By following this detailed methodology outline, you can effectively conduct your research and analyze the impact of environmental noise on Itinerant Workers in Lagos. Adjustments can be made based on specific requirements and practical considerations during the research process.