

Influence of Covid-19 Pandemic on Personal Health and Hygiene Practices among Commercial Bus Drivers in Lagos Metropolis

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Abstract

The purpose of this study was to examine the influence of the COVID-19 pandemic on personal health and hygiene practices among commercial bus drivers in Lagos Metropolis. A descriptive survey research design was adopted for this study, with a multistage sampling technique. A stratified sampling technique was adopted to select the study locations, while a simple random sampling technique was used to pick 603 respondents who formed the sample for the study. The researchers used a revalidated questionnaire with a test-retest method yielding a Cronbach alpha score of 0.94. Data were analyzed using inferential statistics and regression analysis to test the stated hypotheses at a 0.05 level of significance. Results indicated that the COVID-19 pandemic significantly influenced the personal health of commercial bus drivers, significantly influenced the hygiene practice among commercial bus drivers, the rate of compliance with COVID-19 guidelines was significantly low among commercial bus drivers and the knowledge of prevention strategies for COVID-19 significantly affected the hygiene practices of commercial bus drivers in Lagos Metropolis.

Keywords: COVID-19, hygiene practices, personal health

1. Introduction

Personal health and hygiene are important factors to consider in disease prevention around the world. Good personal hygiene involves keeping all parts of the body clean and healthy. It is important for maintaining a good physical health status. For people with poor personal hygiene, the body provides an ideal environment for germs to grow, leaving it vulnerable to infection. The coronavirus disease of 2019 (COVID-19), a global pandemic, is an example of how adequate personal health and hygiene practices can reduce the chances of getting infected. However, public transport, which a large amount of the population undergoes on a regular basis, could serve as a super spreader of diseases when workers fail to follow basic personal health and hygiene practices. Good personal hygiene benefits an individual's health and impacts the lives of those around them.

Most health experts believe that the new strain of coronavirus likely originated in bats or pangolins. The first transmission to humans was in Wuhan in China. Since then, the virus has mostly spread through person-to-person contact. COVID-19 is defined as an illness caused by a novel coronavirus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV), which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China. It was initially reported to the World Health Organization (WHO) on December 31st, 2019. On January 30th, 2020, the WHO declared the COVID-19 outbreak to be a global health emergency (WHO, 2021a). On March

11th, 2020, the WHO declared COVID-19 a global pandemic, its first such designation since declaring H1N1 influenza a pandemic in 2009 (World Health Organization, 2021b).

After spreading through East Asia, Europe, and North America in early 2020, the COVID-19 global pandemic started affecting countries in Africa and Latin America (WHO, 2021b). With the largest population in Sub-Saharan Africa, and long-standing travel and trade links within Africa and to the rest of the world, it seemed inevitable that the pandemic would eventually reach Nigeria. According to the Nigeria Center for Disease Control (NCDC, 2021a) coronaviruses are zoonotic, meaning they are normally transmitted between animals and people. The Federal Government of Nigeria initiated a Presidential Task Force on COVID-19 to provide high-level strategic national response to the disease in the country. The Federal Ministry of Health activated an NCDC-led national COVID-19 Emergency Operations Centre (EOC) to coordinate the national public health response. At state-level, preparedness and response activities were coordinated through Public Health EOCs in each State (Ajibo, 2020). The NCDC also launched a campaign themed “Take Responsibility.” This was a call to all Nigerians and residents in the country to join forces and be proactive in taking greater individual and collective responsibility in preventing and controlling the spread of COVID-19 in the country (NCDC, 2021).

The impact of COVID-19 on public transport varied depending on the stage of the coronavirus spread in the area of study. Public transport was one of the most disrupted sectors of the COVID-19 pandemic with early estimates suggesting that the drop in ridership during lockdown periods was as much as 80%–90% in major cities in around the world (Gkiotsalitis & Cats, 2020). While concerns about using public transport have partially been alleviated since the initial restrictions, passengers remain reluctant and there are higher levels of concern about public transport hygiene than pre-COVID (Beck & Hensher, 2020). Risk perceptions may thus not only impact immediate travel decisions and trade-offs made between time and crowding, but may also have major implications for the ridership levels of public transport in the post-lockdown period and possibly even at the aftermath of the pandemic. Public transport workers should display a high level of hygiene practice so as to reduce the spread of the virus on an even larger scale (Shelat, Cats & van Cranenburgh, 2020).

As the transition to the new normal progresses, governments, public health authorities, transport providers and communities worked towards achieving three main objectives which focused on ensuring the health and safety of travelers and transport workers; sustaining the short-term gains in safer, healthier and more sustainable modes of transport that have been observed during the lockdown and preparing for a possible future occurrence of events of a similar nature and responding to all transmission scenarios (Ozili, 2020). The ultimate goal of the COVID-19 lockdown measure was to flatten the curve of the novel virus. Central to attaining these objectives was maintaining the functioning and economic viability of public transport systems, while rebalancing the distribution of different modes of transport towards reduced car dependency and increased safe walking and adequate physical and social distancing in shared rides (Ajide, Ibrahim & Alimiab, 2020).

Supporting healthy urban transport and mobility in the context of COVID-19 is part of the World Health Organization’s sustained effort to provide up-to-date guidance on COVID-19 to Member States. Despite the unprecedented national measures in combating the outbreak, the success or failure of these efforts is largely dependent on public behaviour. Specifically, public adherence to preventive measures established by the government is of prime importance to prevent the spread of the disease. Adherence is likely to be influenced by the public's knowledge and attitudes towards COVID-19. Evidence shows that public knowledge is important in tackling pandemics (Chirwa, 2019).

The UK NHS guidance on coronavirus defines "close contact" as being within two metres of an infected person for more than 15 minutes. However, this might be a challenge for a mega-city like Lagos in which the majority of the population depends on public transport to go from place to place. It is estimated that

about 50% of all trips in Lagos are made by public transport (BRT, LAGBUS, Semi-Formal Mini Buses, Federal Mass Transit Train) and shared taxis, LAMATA. In Abuja, about 57% of trips are by public transport and shared taxi. The situation is similar in many other cities of Nigeria (Emmanuel, 2020).

To help fight the spread of COVID-19, public transport workers should thoroughly and frequently clean and disinfect facilities, public transport vehicles, bus, tram and train stations and equipment (elevators, escalators, handrails, seats, ticketing devices and other surfaces). There should be provision of public hand-hygiene stations at all transport locations (bus stops and train stations, as well as on buses and trains). Drivers should always be with their personal protection equipment such as non-medical masks, disposable gloves and hand sanitizer. By ensuring public awareness and knowledge about the coronavirus, deeper insights into existing public perception and practices can be gained, thereby helping to identify attributes that influence the public in adopting healthy practices and responsive behaviour (Podder *et al.*, 2019).

Governments, at both national and local levels, have an important role to play in maintaining the trust of users while providing safe and efficient public transport options that reduce the risk of COVID-19 infection. This support may include government subsidies and investment in the public transport sector to compensate for the loss of revenue from lower rates of usage and additional operating costs resulting from new sanitation measures, such as more frequent cleaning and disinfection of vehicles (WHO, 2021c). Assessing public knowledge is also important in identifying gaps and strengthening ongoing prevention efforts. Moreover, in order to control the spread of the disease, knowledge and awareness of the virus should be disseminated among the public from official sources, including the WHO (Al-Hanawi *et al.*, 2020). This study therefore aims to examine the influence of COVID-19 pandemic on personal health and hygiene practices among commercial bus drivers in Lagos Metropolis.

The researchers observed the poor nature of personal hygiene among public transport workers in Lagos state. However, during the COVID-19 pandemic, individuals, including public transport workers, were required to wash their hands properly, wear face masks, ensure social distancing and proper sanitization among others. Infectious diseases pose a significant risk to the global population and enhancing public awareness during an outbreak is essential because adequate civic action during an outbreak is driven by a public understanding of disease transmission. In case of failure to comply with preventive measures, as well as a lack of adequate healthcare facilities and infrastructure, this could multiply the danger caused by disease outbreaks in developing countries like Nigeria. The researchers have observed that the available COVID-19 regulations and guidance on how to maintain the recommended social distance when taking public transport was scarcely enforced.

Transport workers in Lagos hardly provided public hand hygiene facilities at bus stops where drivers and passengers could sanitize and wash their hands, which is vital in preventing the spread of COVID-19. The hygiene status in public vehicles in Lagos is appalling. Public transport workers are also perceived as untidy as they usually do not stay clean because of the nature of their job in a city like Lagos. The researcher wants to find out if public transport workers have gone through a major change in their personal health as a result of the COVID-19 pandemic. This present study aims to determine the influence of the COVID-19 pandemic on personal health and hygiene practices among commercial bus drivers in Lagos Metropolis.

2. Methodology

A descriptive survey research design was adopted for this study. This was carried out in Somolu, Lagos Mainland and Mushin local government areas of Lagos State among commercial bus drivers using a multistage sampling technique. A stratified sampling technique was used to select the study locations while a simple random sampling technique was adopted to choose 603 commercial drivers that eventually formed the sample for the study. The research instrument used was a revalidated questionnaire with a test-retest method yielding 0.94 (Cronbach alpha).

Thirty-three question items were generated on a 4-point Likert-type scale. After field testing of the instrument on respondents, ambiguous and redundant variables were deleted. In order to reduce the items to a meaningful and manageable structure, a principal component factor analysis with varimax correlation, extraction and rotation was conducted for predictive and convergent validation of the instrument. The items were further subjected to exploratory factor analysis setting the retention criterion at 0.70. At the second stage of validation of the instrument, the final version of the research instrument comprised twenty question items representing the personal health and hygiene practice of commercial bus drivers as it relates to the COVID 19 pandemic. Data were analyzed using descriptive statistics such as frequency counts and percentages for demographic attributes of the respondents, while inferential statistics such as multiple regression analysis were used to test the hypotheses at the 0.05 level of significance.

3. Results

3.1. Demographic Data Presentation

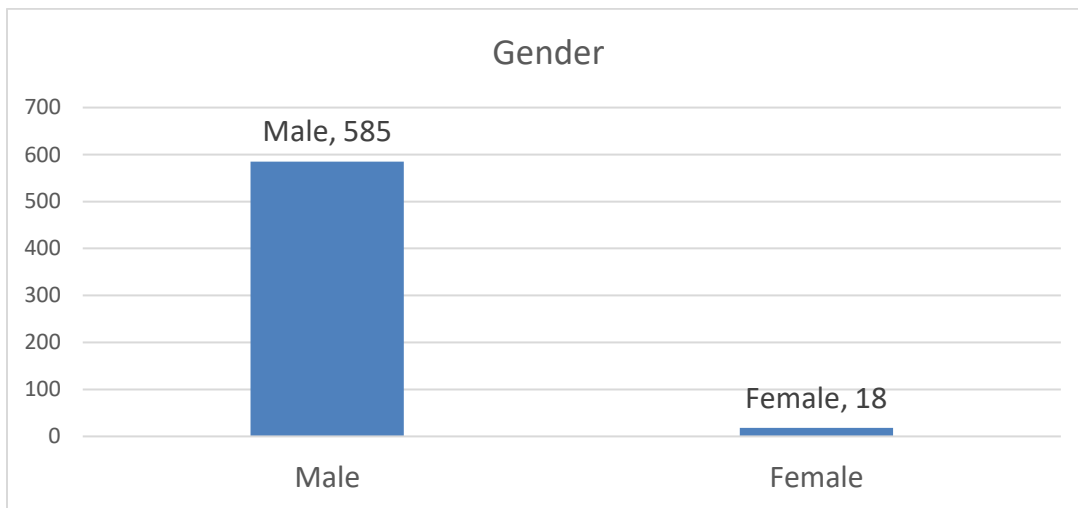


Figure 1: Bar chart representation of respondents by gender; source: original research

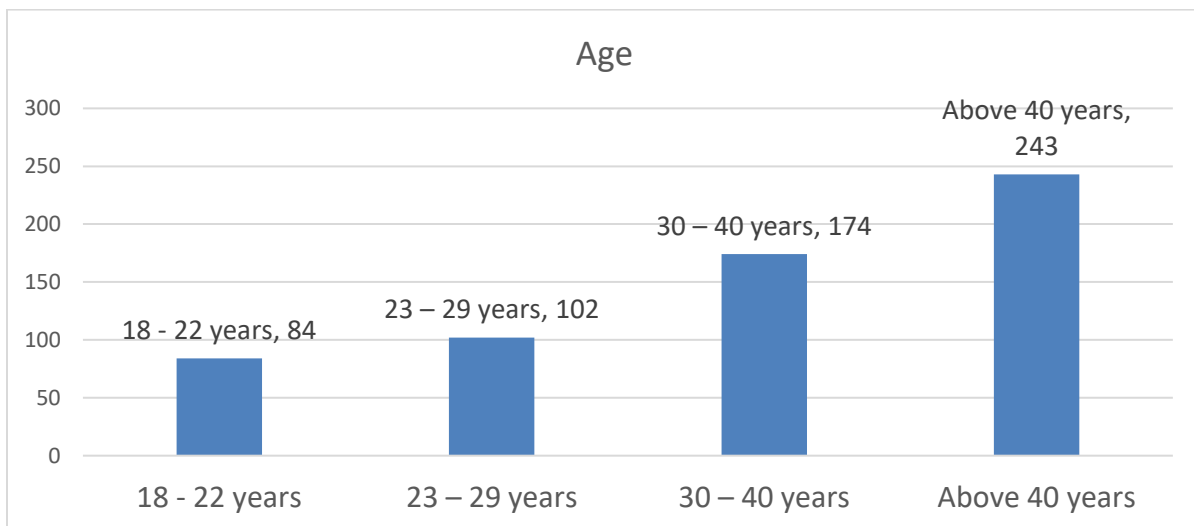


Figure 2: Bar chart representation of respondents by age; source: original research

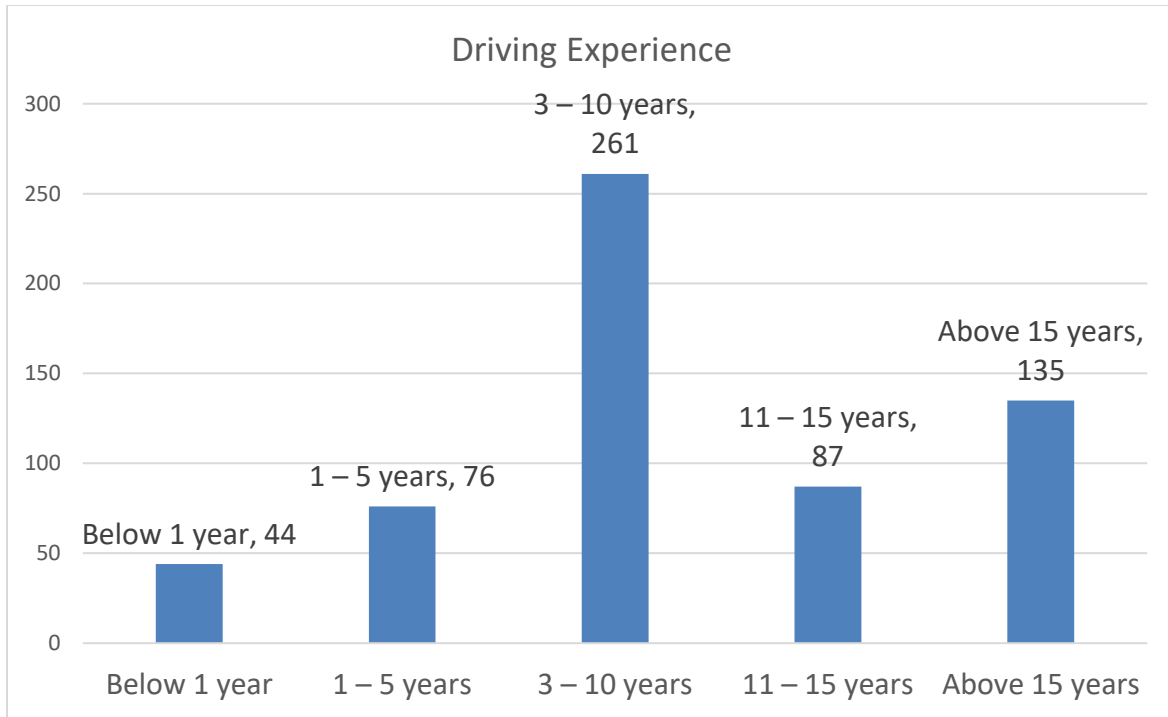


Figure 3: Bar chart representation of respondents by driving experience; source: original research

3.2. Testing of Hypotheses

Regression analysis was used to test the hypothesis at a 0.05 level of significance.

Hypothesis 1: COVID-19 pandemic will not significantly influence the personal health of commercial bus drivers in Lagos Metropolis.

Table 1: Multivariate Regression Coefficients for COVID-19 Pandemic Influence on the Personal Health of Commercial Bus Drivers in Lagos Metropolis; source: original research

	Sum of Squares	Df	Mean Squares	F	Sig
Regression	4.011	2	1.224	6.31	0.00
Residual	23.630	601	0.815		
Total	27.641	603			

P<0.05

The table above showed that the F-Value (6.31) is significant at 5%. This implies that COVID-19 significantly influenced the personal health of commercial drivers, hence the null hypothesis is hereby rejected.

Hypothesis 2: COVID-19 pandemic will not significantly influence the hygiene practices among commercial bus drivers in Lagos Metropolis.

Table 2: Multivariate Regression Coefficients for COVID-19 Pandemic Influence on the Hygiene Practice Among Commercial Bus Drivers in Lagos Metropolis; source: original research

	Sum of Squares	Df	Mean Squares	F	Sig
Regression	5.882	2	2.302	8.42	0.00
Residual	29.359	601	0.667		
Total	35.241	603			

P<0.05

The table above showed that the F-Value (8.42) is significant at 5%. COVID-19 significantly influenced hygiene practice of drivers, hence the null hypothesis is rejected.

Hypothesis 3: The compliance rate with COVID-19 guidelines will not be significantly low among commercial bus drivers in Lagos Metropolis.

Table 3: Multivariate Regression Coefficients for the Compliance Rate to COVID-19 Guidelines Among Commercial Bus Drivers in Lagos Metropolis; source: original research

	Sum of Squares	Df	Mean Squares	F	Sig
Regression	7.471	2	1.247	11.68	0.00
Residual	32.105	601	0.601		
Total	39.576	603			

P<0.05

The table above showed that the F-Value (11.68) is significant at 5%. COVID-19 significantly influenced the compliance rate of commercial drivers, hence the null hypothesis is hereby rejected.

Hypothesis 4: The knowledge of prevention strategies for COVID-19 will not significantly affect the hygiene practices of commercial bus drivers in Lagos Metropolis.

Table 4: Multivariate Regression Coefficients for the Knowledge of Prevention Strategies for COVID-19 Influence on the Hygiene Practices of Commercial Bus Drivers; source: original research

	Sum of Squares	Df	Mean Squares	F	Sig
Regression	4.922	2	2.293	8.04	0.00
Residual	25.063	601	0.571		
Total	29.985	603			

P<0.05

The table above showed that the F-Value (8.04) is significant at 5%. This implies that COVID-19 significantly influenced the knowledge of prevention of commercial drivers, hence the null hypothesis is hereby rejected.

4. Discussion of Findings

Hypothesis one revealed that the COVID-19 pandemic significantly influenced the personal health of commercial bus drivers in Lagos Metropolis. The result of this finding correlates with Greenhalgh *et al.*, (2020), who noted that transport workers tend to improve their personal health by following guidelines that

prevent disease spread during the global COVID-19 pandemic. They further said that public transport service providers in many countries have to transform their services to adhere to physical distancing measures and proper personal hygiene practices. It is against this reality that service providers around the world are currently implementing measures that result in significant reductions in service capacity. Many public transport service providers have resumed services following the national regulations of 1–2 metre physical distancing and this will imply a major capacity drop of 60%–90%. The COVID-19 pandemic generally improves drivers' attitude towards their personal hygiene, so as to reduce and prevent disease spread (Gkiotsalitis & Cats, 2020). A number of health problems can arise due to poor personal health practices. Poor personal health could increase one's chances of getting infected with a wide range of diseases.

Hypothesis two revealed that COVID-19 pandemic significantly influences the hygiene practice among commercial bus drivers in Lagos Metropolis. The result of this finding agrees with Podder *et al.* (2019), that COVID-19 pandemic made public transport workers focus more on good hygiene practices, such as proper hand washing, sanitization and wearing of face masks, among other measures, to curb the spread of COVID-19. It may also, help to fight the spread of COVID-19, public transport workers should thoroughly and frequently clean and disinfect facilities, public transport vehicles, bus, tram and train stations and equipment (elevators, escalators, handrails, seats, ticketing devices and other surfaces). There should be provision of public hand-hygiene stations at all transport locations (bus stops and train stations, as well as on buses and trains). Drivers should always be with their personal protection equipment such as non-medical masks, disposable gloves and hand sanitizer. By ensuring public awareness and knowledge about the coronavirus, deeper insights into existing public perception and practices can be gained, thereby helping to identify attributes that influence the public in adopting healthy practices and responsive behavior (Podder *et al.*, 2019). Viruses such as COVID-19 can be spread by hand contact. Many people often touch their nose or mouth with their hands, without even noticing. One of the important recommendations to prevent the spread of the virus is to follow the hygiene guidelines. The greatest benefit of practicing hygiene is the reduction in disease transmission and improved health. Safely managed water, sanitation and hygiene (WASH) services are an essential part of preventing and protecting human health during infectious disease outbreaks, including the current COVID-19 pandemic (WHO, 2021a).

The finding of the test of hypothesis three revealed that the compliance rate with COVID-19 guidelines was significantly low among commercial bus drivers in Lagos Metropolis. The result of this finding correlates with Olapegba, Ayandele and Kolawole (2020), who observed that public transport workers in Lagos state struggled to comply with some of the guidelines for preventing the spread of COVID-19. They noticed that ensuring physical distancing was a major challenge among commercial bus drivers because they tend to be about making profits. It was discussed that compliance with COVID-19 preventive measure is a double-edged sword cutting through the fabric of the everyday life of the Nigerian citizen and even among commercial bus drivers in Lagos state, to be precise. In Nigeria, where the majority of its citizens make a living in the informal economy, their means of livelihood was threatened by the lockdown since much of their activities and businesses involve face-to-face contact. This in turn led to a low degree of compliance with the government directives among public transport workers over time during the COVID-19 pandemic (Olapegba *et al.*, 2020). However, different studies suggest that a major obstacle to compliance with personal health guidelines is concern over the loss of income or employment due to prolonged absence from work. Meanwhile, public health officials tend to assume high compliance rates among the public for self-quarantine instructions (Hernandez, 2020).

The finding of the test of hypothesis four revealed that knowledge of prevention strategies for COVID-19 significantly affected the hygiene practices of commercial bus drivers in Lagos Metropolis. The result of this finding correlates with the study by Lee, Kang and You (2021) about the knowledge, attitudes and practices (KAP) towards COVID-19. They noted that knowledge directly affected both attitudes (e.g., perceived risk and efficacy belief) and practices (e.g., personal hygiene practices and social distancing). It

was observed that among the influencing factors of COVID-19 preventive behaviours, efficacy belief was the most influential and significant practice factor. It mediated the relationship between knowledge and all three preventive behaviours (wearing facial masks, practicing hand hygiene and avoiding crowded places). The level of knowledge varied by sociodemographic characteristics (Lee *et al.*, 2021). It is important for public transport workers to show a high level of knowledge, awareness and practice towards reducing the spread of COVID-19. The dramatic changes in ridership levels and patterns, as well as the introduction of measures aimed at preventing the virus spread, pose unprecedented challenges to the public transport sector. Moreover, these changes are subject to great uncertainty and the dynamics of the pandemic often do not follow a consistent recovery path. Public transport service providers had to rely on limited knowledge and ad-hoc procedures to cope with these rapid and dramatic changes (Gkiotsalitis & Cats, 2020).

5. Conclusion

The study, therefore, concludes that the COVID-19 pandemic significantly influenced the personal health of commercial bus drivers in Lagos Metropolis. The COVID-19 pandemic significantly influenced the hygiene practice among commercial bus drivers in Lagos Metropolis. The compliance rate with COVID-19 guidelines was significantly lower among commercial bus drivers in Lagos Metropolis. The knowledge of prevention strategies for COVID-19 significantly affected the hygiene practices of commercial bus drivers in Lagos Metropolis.

5.1. Limitations

The following limitations were observed:

- Commercial drivers often have tight schedules and finding a suitable time for them to participate in the survey was challenging. In fact, the questionnaire was redrafted to be simpler and shorter.
- The mobile nature of commercial drivers makes it difficult to reach them consistently. They seemed to be always on the move, making it hard to organize face-to-face interviews or distribute paper surveys.
- Some individuals were skeptical of surveys, fearing potential consequences or misuse of information. Establishing trust is essential to encourage participation and ensure honest responses.
- Literacy levels among commercial drivers varies. Complex language or written surveys posed challenges for those with lower literacy levels, affecting the quality of responses.
- A lot of bureaucratic processes involved in obtaining permissions to conduct surveys were faced and this led to delay in reaching the relevant authorities.
- Some areas within Lagos State are insecure as thugs regularly harassed us. Researchers need to be aware of potential risks and take appropriate measures to ensure the safety of both participants and themselves.

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