AN INVESTIGATION OF THE MOTORISTS' SATISFACTION WITH LAGOS COMPUTERISED VEHICLE INSPECTION SERVICES IN LAGOS METROPOLIS

By

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ABSTRACT

As Lagos continues to expand into a significant urban centre with high vehicular density, ensuring roadworthiness through practical vehicle inspections remains essential to enhancing road safety, promoting environmental sustainability, and improving traffic management. This study investigates the spatial distribution of vehicle inspection centres and motorists' perceptions of the effectiveness of vehicle inspection services within Lagos Metropolis, Nigeria. Specifically, it evaluates the operational efficiency and service delivery quality of the Lagos Computerised Vehicle Inspection Service (LACVIS). Primary data were collected through a structured questionnaire administered to 285 motorists, and the stated hypothesis that there is no significant satisfaction with the Lagos State Computerised Vehicle Inspection Services (LACVIS) among motorists was tested using bivariate regression analysis. Findings from the bivariate regression analysis revealed a statistically significant negative relationship between motorists' satisfaction and LACVIS's performance, indicating that improvements in LACVIS's performance were associated with a decline in motorists' satisfaction ($\beta = -0.851$, $p < 0.05$). The study recommends that LACVIS management prioritise staff welfare and continuous professional training to enhance service delivery. Additionally, a more equitable spatial distribution of inspection centres is advocated to improve accessibility and broaden service coverage.

Keywords: Inspection, Lagos metropolis, Motorists, Service, Vehicle

INTRODUCTION

The Lagos Computerised Vehicle Inspection Service (LACVIS) plays a crucial role in ensuring road safety, reducing vehicular emissions, and promoting transportation efficiency by verifying that vehicles meet mechanical and environmental standards. Globally, vehicle inspection programs have been recognised as an essential component of traffic safety management, conducted periodically (WHO, 2023; Elias & Aiyegbajeje, 2025). In more advanced countries, such as Japan, Germany, and the United Kingdom, technologically advanced vehicle inspection systems have significantly reduced road crashes associated with mechanical failure (International Transport Forum [ITF], 2018; United Nations Economic Commission for Europe [UNECE], 2020). These countries adopt computerised testing, centralised databases, and strict enforcement protocols to ensure compliance and improve roadworthiness and environmental performance. In many African countries, there is a growing recognition of the importance of vehicle inspection services in reducing road traffic accidents and controlling emissions. However, disparities in the spatial distribution of LACVIS and inconsistencies in service delivery may undermine the effectiveness of such programs.

A good example of this can be drawn from the studies conducted in Kenya and Ghana, which reveal that limited access to inspection centres, particularly in rural and peri-urban areas, results in a reduction in the effectiveness of enforcement and leads to increased rates of uninspected and certainly unsafe vehicles on the road (Khayesi, 2005; Okyere et al., 2022). Furthermore, the reliance on physical inspection methods in many low-income countries undermines the reliability and objectivity of inspection outcomes (World Bank Report, 2024).

In Nigeria, road safety is a significant challenge to public health and infrastructure. The LACVIS is the agency mandated to regulate vehicle condition through periodic inspections, with a focus on minimising road accidents caused by vehicle defects. It is also expected that other states of the federation should have an equivalent agency for the same purpose. Nevertheless, the country faces inherent challenges, including the lack of, or outdated, inspection facilities, the poor and uneven distribution of centres, and overlapping institutions. According to the FRSC's report (2023), over 12% of recorded road crashes in Nigeria were attributed to vehicle-related defects in the previous year, underscoring the need for more effective vehicle inspection systems.

Furthermore, vehicle inspection inefficiencies have consistently been a bane of the Lagos Metropolis, Nigeria's commercial hub and the most populous city. The state is confronted with high intra-city and inter-state traffic volumes, as well as a multitude of private and commercial vehicles (Gbadamosi, 2017). The concentration of centres in advantageous locations, such as privileged neighbourhoods and central business districts, often excludes other stakeholders in peripheral areas and informal settlements, limiting access and compliance among vulnerable users (Stein, 1992; Adebayo & Afolayan, 2021; Hassan & Fatile, 2024). While the Lagos State Vehicle Inspection Service (LACVIS) has implemented various strategies to improve and modernise operations, such as the creation of vehicle inspection centres (VIC) and the implementation of automated booking systems, there is still a grave concern about the equity in the spatial distribution and operational effectiveness of these centres. This study, therefore, investigates the performance of LACVIS in the Lagos Metropolis.

The functionality and sustainability of any modern city, including megacities such as Lagos, depend significantly on the vital role of the urban transportation system. Across sub-Saharan Africa, Lagos faces significant transportation and environmental challenges as one of the most densely populated cities in the region. Some of these challenges are closely linked to the condition and safety of vehicles operating on the roads. For instance, Raji (2016) examined vehicle inspection services (VIS) and motorists' perceptions of VIS activities as well as motorists' vehicle condition in the Ijebu zone of Ogun State, Nigeria. He found that, based on the study assessment, the vehicles are in better condition than in poor condition, and that 83.4% of the causes of road accidents in the zone are attributed to humans. Despite the findings, vehicle inspection activities cannot be ignored. For this purpose, the LACVIS was established to regulate and ensure that vehicles meet minimum safety, environmental, and mechanical standards before being awarded a certificate of roadworthiness, which allows them to be registered and operate on the roads (Hudec & Sarkan, 2022; European Commission, 2023; Tapak et al., 2023).

Despite the establishment of LACVIS centres across various parts of Lagos State by agencies such as the Lagos State Vehicle Inspection Office (VIO) under the Ministry of Transportation, the question that begs for an answer is: how equitably are these vehicle inspection centres distributed?

Additionally, how effective are they in fulfilling their mandates? Lagos, a highly heterogeneous metropolis in terms of socio-economic and spatial characteristics, requires a continuous and comprehensive inspection service that is both geographically accessible and operationally efficient. The LACVIS centres are located in high-traffic urban corridors or industrial zones, leaving the periphery of the metropolis and low-income communities underserved (See Fig. 1). Consequently, vehicle owners in such areas may be less inclined to comply due to the long distances and delays involved in accessing inspection services (Adeniji, 2021; Haq et al., 2023; Olajide, 2024).

However, the spatial distribution and effectiveness of LACVIS services across the Lagos metropolis raise some concerns about accessibility, efficiency, and enforcement equity. These inspection exercises are intended to reduce road traffic accidents caused by mechanical faults (e.g., inferior braking systems), improve environmental sustainability by identifying vehicles that emit dangerous pollutants, and ensure compliance with national and state transportation regulations (Aiyegbajeje et al., 2025).

In Lagos, vehicle inspection is not just a regulatory requirement but a vital element of public safety and urban management initiatives, as over one million registered vehicles operate, and thousands more are in informal circulation (Lagos State Traffic Management Authority, 2022; Federal Road Safety Corp, 2023). Furthermore, infrastructural limitations, administrative inefficiencies, corruption, a lack of technical equipment, and a limited workforce have often hindered the effectiveness of LACVIS centres. These hindrances may affect the accuracy of inspection results and encourage the proliferation of non-roadworthy vehicles. According to the Lagos State Ministry of Transportation (2023), a significant number of cars involved in daily road crashes are vehicles that had not been inspected for years or had avoided inspection through unofficial means. This attitude among motorists suggests a total disconnect between the desired outcomes of LACVIS and its actual implementation.

Moreover, the ineffective enforcement of vehicle inspection regulations may undermine the efforts to improve urban mobility and environmental quality (Akinmolayan & Ajayi, 2023; WHO, 2023; Aiyegbajeje et al., 2025). The disconnection between LACVIS's desired and actual outcomes, therefore, suggests a need for a thorough investigation into the spatial distribution and operational effectiveness of LACVIS in the Lagos Metropolis. It is very crucial to understand the spatial configuration of LACVIS centres to identify geographic disparities in access and how the disparities affect vehicle owners' compliance levels. Another critical issue is evaluating how well the centres perform in ensuring that only roadworthy vehicles are granted clearance, particularly considering the technological and administrative limitations. Moreover, such a dual-focused investigation would provide insights into spatial justice in urban service delivery and inform strategies to increase service coverage, enhance regulatory enforcement, and improve road safety outcomes.

Based on the foregoing, it is clear that there is a paucity of information on the efficacy of LACVIS in the Lagos metropolis. This study aims to assess the satisfaction of vehicle inspection services within Lagos Metropolis. The specific objectives are to examine the level of motorists' participation in the vehicle inspection exercise and to assess motorists' perceptions of LACVIS. Furthermore, the study hypothesised that there is no significant satisfaction with the LACVIS operations among motorists.

THE STUDY AREA

The study was conducted in Lagos Metropolis, one of Nigeria's largest and most urbanised cities. It is located in the southwestern part of the country, bordering the Atlantic coastline. Lagos Metropolis is Nigeria's economic and transportation hub, with a high concentration of vehicular traffic due to its dense population, dynamic commercial activities, and extensive road networks. The metropolis comprises twenty local government areas, including Ikeja, Surulere, Mushin, Lagos Island, and others that collectively accommodate millions of residents and daily commuters.

The Lagos State Computerised Vehicle Inspection Service (LACVIS) is a critical component of Lagos State's efforts to improve road safety and ensure compliance with vehicle standards. Established under the Lagos State Vehicle Inspection Service Law, LACVIS aims to reduce road accidents, enhance the environmental performance of vehicles, and promote efficient public transportation by mandating periodic inspections for all vehicle categories operating within the state. The inspection facilities are strategically located across key access points of the metropolis, including major highways and transportation terminals, serving both private and commercial motorists.

Lagos Metropolis was selected as the study area due to its high vehicle volume, prevalence of traffic congestion, and the significant role of LACVIS in transport management and safety enforcement. The concentration of motorists who regularly engage with the LACVIS facilities in this region provides a representative context for evaluating user satisfaction levels. Additionally, the diverse socioeconomic backgrounds of motorists in the metropolis enable a comprehensive analysis of perceptions, challenges, and expectations associated with the computerised vehicle inspection process. LACVIS has 29 service centres, most of which are located within the metropolis (See Fig. 1).

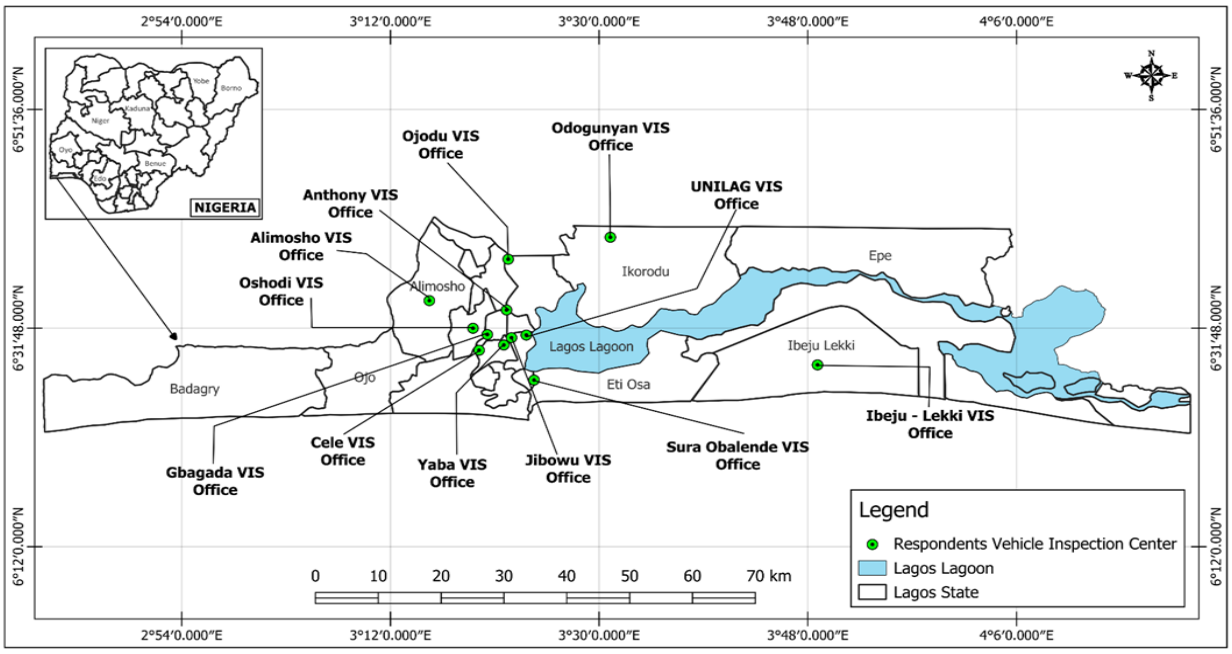

Figure 1: Map of Study Area

MATERIALS AND METHODS

Primary data were obtained through a survey questionnaire. Using a structured questionnaire, information on socio-demographic characteristics, motorists' participation in the vehicle inspection exercise, and motorists' perceptions of LACVIS was collected. The GPS was used to obtain locational data of the distribution of LACVIS service centres across the Lagos Metropolis. The study population comprised private and commercial motorists. The questionnaire focuses on respondents' biodata, the level of motorists' participation in the vehicle inspection exercise, the locational distribution of LACVIS centres across the Lagos Metropolis, and motorists' perceptions of LACVIS. The study adopts the socio-technical systems framework, which emphasises the interaction between social and technical components in achieving organisational goals.

In the context of vehicle inspection, this framework highlights the interplay between technical components and social components. Technical components include infrastructure, equipment, and inspection protocols, while the social components include motorists' perceptions, public awareness, and enforcement mechanisms. This approach is particularly relevant to Lagos, where systemic inefficiencies and socio-cultural factors significantly influence the success of vehicle inspection programs. By analysing these interactions, the framework provides a holistic understanding of the challenges and opportunities for improving service delivery. The socio-technical systems approach provides a comprehensive understanding of the structural and systemic challenges facing vehicle inspection in Lagos.

The record on the number of vehicles passing through LACVIS daily, monthly, and yearly was not disclosed. However, based on observations at selected LACVIS centres, a hypothetical monthly average of 5,000 vehicles/motorists was recorded. This figure was further processed using the Yamane (1967) sampling formula to arrive at a total of 318 motorists that were sampled at the LACVIS centres in Yaba and UNILAG. At the end of the sampling exercise, 285 of 318 completed and returned questionnaire forms, yielding a response rate of 89.6%. The study adopted both purposive and systematic random sampling techniques. The purposive sampling technique was used to target a specific age category that is still very active behind the wheel. The reason for adopting purposive sampling techniques was to intentionally select participants or cases that best align with the research objectives, enabling in-depth, rich data collection.

Furthermore, the systematic random sampling technique was used to administer the questionnaire, as motorists were sampled at LACVIS centres. The reason for adopting systematic random sampling was to ensure an even spread of participants across a population while minimising researcher bias. Also, some motorists within UNILAG who used other LACVIS centres were sampled. Other identified LACVIS centres reportedly used by the respondents were located in Gbagada, Yaba, UNILAG, Ibeju-Lekki, Ikorodu, and Anthony (See Figure 2). Copies of the questionnaire were distributed to each motorist at a two-motorist interval. At each LACVIS centre, motorists aged 18 or older were given the questionnaire to complete. Informed consent was obtained from respondents prior to administering the questionnaire. The surveyed motorists reside in various locations within and outside the Lagos metropolitan area. A bivariate regression model was used to assess the relationship between motorists' satisfaction (Y) and LACVIS operations (X). The dependent variable Y (motorists' satisfaction) and the independent variable (X), LACVIS performance, were measured using responses from sampled motorists. The model is given as:

$Y = b_0 + b_1X$ 1

Where: Y = Satisfaction of motorists (I am satisfied with LACVIS = 1, not satisfied with LACVIS = 0)

b_0 = Y - intercept;

b_1 = regression coefficient and X_1 = LACVIS performance (I am satisfied with LACVIS performance = 1, not satisfied with LACVIS performance = 0)

The statistical analysis was conducted using SPSS version 20.0, and maps highlighting LACVIS locations were produced in ArcGIS 10.3.

RESULTS AND DISCUSSION

Demographic Profile of Motorists

The gender distribution of motorists is male-dominated. Out of 285 respondents, 170 (59.6%) were male, while 115 (40.4%) were female. This indicates that males are more involved in vehicular operations, consistent with national trends in driving demographics. The age of the motorists, as shown in Table 1, indicates that the sample is dominated by young adults aged 18 to 37 Years, who constitute 190 (66.6%). However, those aged 57 and above formed the smallest group in the sample. The educational level of motorists is relatively high, with 180 (63.2%) of the respondents having attained tertiary education. This suggests a relatively literate group, which is important for compliance and understanding of inspection laws. Additionally, 60 (21.1%) had secondary education, 25 (8.8%) had only primary education, and 5 (1.8%) had no formal education. Furthermore, 15 (5.3%) indicated "other" qualifications. Private cars account for the majority of vehicles owned by respondents, with 130 individuals (45.6%) indicating ownership. This is followed by 70 respondents (24.6%) who own commercial buses and 40 (14.0%) who operate ride-hailing taxis.

Additionally, 30 respondents (10.5%) reported owning motorcycles or tricycles, while 15 (5.3%) reported owning other types of vehicles. This distribution reflects a predominance of private vehicle use over commercial or shared transport modes. A significant proportion of respondents, 90 (31.6%), have 6-10 years of driving experience, while 70 (24.6%) have been driving for over 10 years. Additionally, 105 individuals (36.8%) reported having 1–5 years of driving experience, and only 20 (7.0%) reported having less than 1 year of driving experience. These figures suggest that more than 60% of the sample comprises seasoned drivers likely familiar with vehicle inspection protocols and road safety measures. A total of 190 (66.7%) of the motorists, the majority, use their vehicles daily, underscoring the need for reliable inspection systems to ensure safety for frequent users.

Table 1: Sociology-Demographic Characteristics of Respondents

Variable	Category	Frequency	Percentage
Gender	Male	115	40.4
	Female	170	59.6
	Total	**285**	**100**
Age (years)	18–27	85	29.8
	28–37	105	36.8
	38–47	55	19.3
	48–57	30	10.5
	Above 57	10	3.5
	Total	**285**	**100**
Educational Level	No formal education	5	1.8
	Primary education	25	8.8
	Secondary education	60	21.1
	Tertiary education	180	63.2
	Others	15	5.3
	Total	**285**	**100**
Purpose of Vehicle Use	Private	130	45.6
	Commercial	70	24.6
	No response	85	29.8
	Total	**285**	**100**
Type of Vehicle Owned	Private car	130	45.6
	Commercial vehicle	70	24.6
	Taxi/Ride-hailing	40	14
	Motorcycle/Tricycle	30	10.5
	Others	15	5.3
	Total	**285**	**100**
Driving Experience	Less than 1 year	20	7
	1–10 years	105	36.8
	11–20 years	90	31.6
	Above 20 years	70	24.6
	Total	**285**	**100**
Frequency of Vehicle Usage	Daily	190	66.7
	2–3 times a week	65	22.8
	Occasionally	30	10.5
	Total	**285**	**100**

The analysis of the modes of transportation used by respondents revealed that private cars were the most frequently used, accounting for 130 respondents (45.6%). This was followed by commercial buses, reported by 70 respondents (24.6%), while taxi/ride-hailing services were used by 40 respondents (14.0%). In addition, motorcycles/tricycles accounted for 30 respondents (10.5%), and a small proportion (15, 5.3%) reported using other modes of transport. In total, 285 responses (100.0%) were recorded, showing a dominance of private car use over public and informal transport alternatives. Two key factors explain the prevalence of private cars over public or commercial transport providers, such as regular vehicle inspections. The primary reason is the sheer volume of private vehicles on the road and the willingness to obey the traffic rules and regulations. Additionally, the tendency of commercial transport providers to evade regulations contributes to low participation in this category in the vehicle inspection exercise.

Assessment of LACVIS Services

As shown in Table 2, 285 respondents were surveyed. Of the respondents, 206 (72.3%) reported participating in a vehicle inspection, while 79 (27.7%) were not. This suggests a relatively high level of participation in the inspection process. Respondents identified several challenges associated with vehicle inspection. However, a long waiting period (87 respondents; 30.5%) was the most frequently reported issue. This was followed by corruption and bribery (66; 23.2%) and inadequate facilities (56; 19.6%) (Elias & Aiyegbajeje, 2025). Other reported problems included poor customer service (44; 15.4%) and high costs (32; 11.2%). These findings suggest that delays, inefficiency, and unethical practices significantly hinder the effectiveness of LACVIS operations. Regarding satisfaction, the majority of respondents reported moderate to low satisfaction with LACVIS services. Only 51 respondents (17.9%) were very satisfied, and 40 (14.0%) were satisfied.

A large proportion of 87 respondents (30.5%) remained neutral. On the negative side, 84 respondents (29.5%) reported being dissatisfied, while 23 (8.1%) were very dissatisfied. This distribution indicates that, although some respondents are satisfied, a considerable level of dissatisfaction and indifference remains among users. When asked to rate the efficiency of LACVIS centres, the most significant proportion of respondents rated them as fair (89, 31.2%). About 78 respondents (27.4%) considered the centres efficient, while 36 (12.6%) rated them very efficient. On the less favourable side, 50 respondents (17.5%) rated them inefficient, and 32 (11.2%) rated them very inefficient. These results highlight that while some level of efficiency is recognised, a significant proportion of users perceive LACVIS centres as operating below expected standards. In all, the findings show that while participation in vehicle inspections is high, systemic issues such as long waiting times, corruption, inadequate facilities, and mixed efficiency ratings contribute to poor user satisfaction.

Table 2: Assessment of LACVIS Operations

Variable	Frequency	Percent
Participation in Vehicle Inspection		
Yes	206	72.3
No	79	27.7
Total	**285**	**100**
Challenge		
Long Waiting Periods	87	30.50%
Poor Customer Service	44	15.40%
Inadequate Facilities	56	19.60%
High Costs	32	11.20%
Corruption/Bribery	66	23.20%
Total	**285**	**100**
Satisfaction with VIS operations		
Very Satisfied	51	17.90%
Satisfied	40	14.00%
Neutral	87	30.50%
Dissatisfied	84	29.50%
Very Dissatisfied	23	8.10%
Total	**285**	**100**
Efficiency Rating of VIS Centres		
Very Efficient	36	12.60%
Efficient	78	27.40%
Fair	89	31.20%
Inefficient	50	17.50%
Very Inefficient	32	11.20%
Total	**285**	**100**

The findings highlight a significant puzzle: while the motorists largely comply with mandatory vehicle inspections, their satisfaction with the process remains low. This indicates that the problem is not with public willingness to participate, but with the service's systemic failures. The high participation rates revealed a restrained audience, obligated to obey the law, enduring a frustrating and inefficient system (Tapak et al, 2023). The disconnect between compliance and satisfaction points to deep-rooted operational flaws that undermine the primary goal of ensuring vehicle and road safety. Operational inefficiencies are a significant source of user dissatisfaction, due to long wait times and unpredictable service delivery. These delays are often a sign of a larger problem, such as an insufficient number of inspection centres, a reliance on outdated manual processes, and a lack of modern scheduling systems. This unpredictability means vehicle owners cannot plan for inspections with any certainty, leading to lost productivity and significant personal inconvenience. The time wasted in queues is a direct cost borne by the public, transforming a necessary safety procedure into a dreaded and time-consuming ordeal.

Compounding the issue of inefficiency is the pervasive problem of corruption, including extortion for unnecessary purposes. When extortion becomes commonplace, the integrity of the entire vehicle inspection system is compromised (Khayesi, 2005). Corruption allows unsafe vehicles to pass inspection, directly endangering the public, while also creating an environment where honest vehicle owners can be unfairly penalised. This erodes public trust, reframing the process in the public's mind from a safety measure to a corrupt, bureaucratic hurdle designed for financial exploitation (Hassan & Fatile, 2024; Elias & Aiyegbajeje, 2025). The presence of such practices leads to a critical lack of oversight and accountability within the regulatory framework.

Furthermore, the physical condition of the inspection facilities often contributes to the negative user experience. The issue of inadequate infrastructure, characterised by outdated or malfunctioning diagnostic equipment, a lack of comfortable waiting areas, and poor process flow, signals a disregard for users; it is not merely cosmetic; it directly impacts the quality and reliability of the inspections. When the tools and equipment used to assess vehicle safety are substandard, the validity of the results is called into question. It reinforces the public's perception of a neglected and poorly managed system. Ultimately, to bridge the gap between high participation and poor user satisfaction, comprehensive reform is essential. The focus must shift from merely enforcing compliance to delivering an efficient, trustworthy, and user-centric service. To address this, a multi-faceted approach is required, including investing in modern technology to streamline appointments and processes, implementing robust anti-corruption measures to restore integrity, upgrading facilities and equipment to ensure accurate inspections, and standardising procedures to guarantee consistent and fair service (European Commission, 2023; Elias & Aiyegbajeje, 2025). Only by addressing these systemic issues can the vehicle inspection process be transformed into a valued public service that genuinely contributes to road safety.

Perception of Motorists on LACVIS

This section examines motorists' perceptions of LACVIS services in the Lagos metropolis, focusing on their experiences and willingness to use LACVIS for vehicle inspections. The majority of motorists (92.7%) acknowledged the lack of an effective vehicle inspection service at the Lagos LACVIS centres. As shown in Figure 3, 96.7% identified the uneven distribution of LACVIS as a significant problem delaying service provision. Additionally, approximately 93.8% of respondents reported that some personnel, particularly mechanics, lack adequate training in addressing customer concerns. In addition, (84.5%) agreed that Lagos LACVIS is poorly monitored and not well-positioned to provide world-class service to its customers.

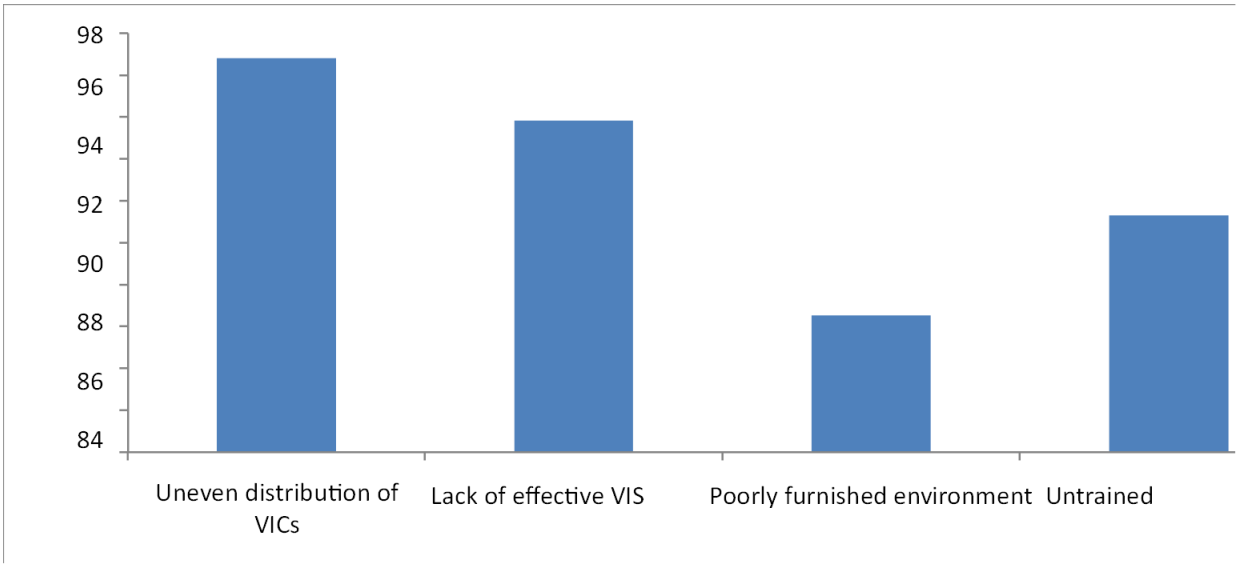

Fig. 3: Perception of Motorists on LACVIS

Regarding the condition of the LACVIS, 89.3% opined that the LACVIS premises are not well furnished to provide some comfort for the motorists while waiting for their vehicles. The findings reveal that a significant proportion of respondents, 89.3%, believe that the Lagos Computerised Vehicle Inspection Service (LACVIS) centres are inadequately furnished to provide comfort for motorists during the inspection process. This perception suggests that the physical environment within many LACVIS premises may not meet basic standards expected of public service facilities, particularly those that require motorists to wait for extended periods while their vehicles undergo inspection. Poor furnishings, limited seating, insufficient shelter, or a lack of climate control can negatively affect the user experience, making the process appear stressful or inconvenient. Such conditions may also reduce public confidence in the service, as the physical setting often shapes users' impressions of institutional efficiency and professionalism.

Improving the furnishing and general ambience of LACVIS centres could therefore enhance user satisfaction and encourage compliance with vehicle inspection requirements. Comfortable waiting areas, including adequate seating, proper ventilation, accessible restrooms, and clear signage, would reflect a more customer-oriented approach. Ultimately, investing in the physical environment of LACVIS facilities not only improves motorist comfort but also strengthens the overall credibility and acceptability of the vehicle inspection system in Lagos.

Result of the hypothesis

The simple linear regression (bivariate regression) results in Table 3 indicate that 85.1% of motorists are dissatisfied with LACVIS operations. The sign of the regression coefficient indicated that motorists' satisfaction was negatively and significantly related to LACVIS operations. This indicates that an increase in LACVIS operations, predicted by -0.851 ($p < 0.05$), was associated with a decrease in the average number of motorists' satisfaction.

Table 3: Bivariate Regression Result between motorists' satisfaction and LACVIS operations

Predictor	*b*	SE (*b*)	*t*	*R*	R^2
Motorists' satisfaction	−1.508	0.029	52.16*	−0.851	0.851
Constant	1.537	—	—	—	—

Note. R^2 indicates the proportion of variance explained (85.1%). $F(1, 283) = 2729.98$, $p < .05$. $N = 285$. $p < .05$.

The analysis of variance results for the regression yielded an F-ratio of 2729.98, which was also statistically significant at a 0.05 confidence level. Therefore, the hypothesis that LACVIS operations will not significantly predict motorists' satisfaction is accepted. The analysis reveals a negative correlation between LACVIS operations and motorists' satisfaction ($r = -0.851$, $p < 0.05$). The negative regression coefficient indicates that higher LACVIS performance significantly decreases motorists' satisfaction. This implies that LACVIS operations are responsible for a 85.1% reduction in motorists' satisfaction. The regression equation for estimating motorists' satisfaction is of the form:

Y = 1.537 - 1.508MS

This study concluded that while vehicle inspection services are concentrated in the central part of the metropolis (See Fig. 2), the delays motorists constantly experience at inspection centres, non-compliance, and reports of unofficial practices further compromise the system's acceptability and capability. The results of a bivariate regression in Table 4 analysed the relationship between motorists' satisfaction and the LACVIS's operations. The findings indicated a relationship between the two variables at the 0.05 significance level, suggesting that LACVIS operations strongly and meaningfully influence motorists' satisfaction. The regression coefficient (b = -1.508) suggests an inverse relationship between LACVIS operations and motorists' satisfaction. This implies that as LACVIS performance indicators improve, perhaps through stricter enforcement, more efficient inspections, or enhanced compliance measures, motorists' satisfaction tends to decrease. This outcome may be due to motorists perceiving the inspection process as stringent, time-consuming, or financially burdensome. Similar patterns have been observed in transport service evaluations, where strict regulatory enforcement often leads to initial user dissatisfaction despite long-term safety benefits (Odeleye, 2001; Aderamo, 2012).

The standard error of b (0.029) indicates reduced variability around the regression coefficient, suggesting the estimate is stable and reliable. The multiple correlation coefficient (R = -0.991) reveals a robust negative correlation between the two variables, suggesting that changes in LACVIS operations almost perfectly explain variations in motorists' satisfaction levels. This finding aligns with the high level of explanation (85.1%), meaning that approximately 85.1% of the variation in motorists' satisfaction is accounted for by LACVIS operations. Such a strong explanatory power is uncommon in social science research but may result from consistent feedback patterns among the respondents (Field, 2018).

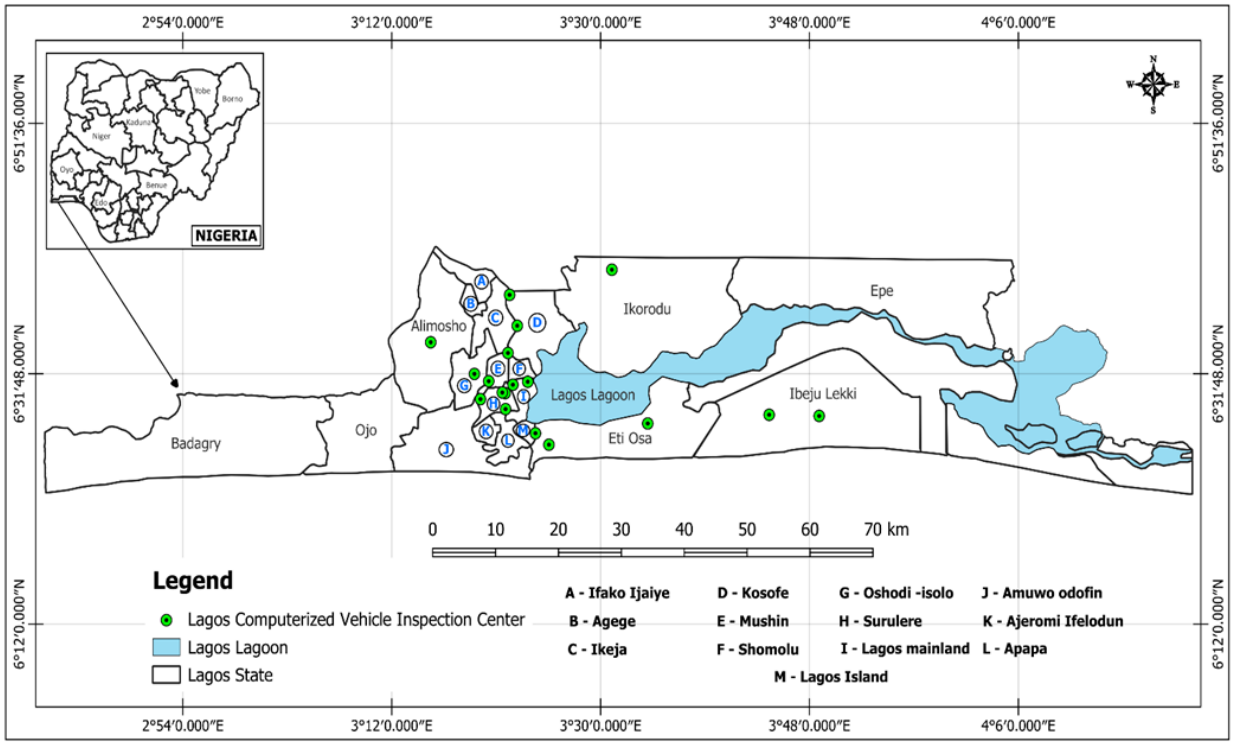

Fig. 2: Spatial distribution of LACVIS centres in Lagos State

The t-value of 52.163, which is significant at the 0.05 level, confirms that the relationship between LACVIS operations and motorists' satisfaction is statistically significant and not due to random chance. This high t-value reinforces the robustness of the observed relationship. The F-statistic (F = 2729.98) further indicates that the model as a whole is statistically significant, demonstrating that LACVIS operations substantially predict motorists' satisfaction within the sampled population. The negative regression coefficient may also reflect motorists' behavioural and attitudinal responses to regulatory interventions.

In Nigeria, motorists often express dissatisfaction with inspection procedures they perceive as bureaucratic and inefficient (Oduwaye, 2013). Thus, while improved LACVIS performance enhances roadworthiness and safety outcomes, it may simultaneously provoke discontent among motorists due to perceived inconvenience, costs, or enforcement rigidity (Ogunsanya & Galtima, 1993). Moreover, the result corroborates Eboli and Mazzulla (2007), who noted that satisfaction with transport services is not only determined by operational performance but also by users' experience and perceptions of service accessibility, convenience, and fairness. In general, the result indicates that while LACVIS performance is a strong determinant of motorists' satisfaction, the negative coefficient underscores the importance of balancing technical performance improvements with a customer-service orientation and transparency. Effective communication, simplified processes, and improved customer relations at LACVIS facilities may help enhance motorists' perceptions and acceptance of inspection outcomes, thereby improving overall satisfaction (Lovelock & Wirtz, 2016).

The findings revealed that LACVIS's operations have had little impact on motorists' satisfaction with its use in Lagos. The argument that LACVIS's operations have not had a significant impact on motorists' satisfaction is similar to the submissions of Mokhtarian (2000), Samuel (2008), Olokesusi et al. (2016), Aiyegbajeje and Ajayi (2020), and Aiyegbajeje (2023), who concluded that transport infrastructure still needs to be overhauled in most African cities. Based on the findings, management will need to prioritise personnel welfare and training to meet motorists' expectations. It is also expected that efforts should be channelled towards the equitable distribution of LACVIS centres to achieve optimal reach.

CONCLUSION

Overall, the research emphasises the need for a more balanced spatial distribution of inspection centres, improved inspection facilities, and well-trained personnel. The bivariate regression analysis reveals a statistically significant negative relationship between motorists' satisfaction and the LACVIS's performance. Although LACVIS's operational performance indicators appear robust—demonstrating efficiency in enforcing vehicle compliance and ensuring roadworthiness—the results suggest that these achievements have not translated into higher user satisfaction. The very high explanatory power ($R^2 = -0.851$) underscores the strength of this relationship, suggesting that LACVIS's performance heavily influences motorists' satisfaction with its ability to fulfil its functions. This outcome suggests that while regulatory effectiveness is important, user perception and experience are equally critical for the success and acceptance of such transport safety institutions. When motorists perceive inspection activities as punitive, inconvenient, or opaque, satisfaction declines despite objective performance gains. Hence, institutional effectiveness must be balanced with responsiveness to public expectations, fairness, and clarity of communication. These findings align with studies by Eboli and Mazzulla (2007) and Aderamo (2012), who stress that transport regulatory agencies must integrate user experience metrics into performance evaluations.

The result also echoes Banjo (2019), who argued that sustainable transport management in Nigeria requires stakeholder-oriented approaches that combine enforcement with education and service efficiency. Policies aimed at expanding coverage, strengthening institutional capacity, enhancing transparency, and promoting public enlightenment will significantly improve compliance rates and service effectiveness. An attempt to address these issues may help Lagos State develop a more sustainable transportation system, potentially reducing road accidents and advancing its vision of an efficient and safe urban mobility system.

Based on the findings of this investigation, this study recommends that management prioritise personnel welfare and training to meet motorists' expectations. Efforts are also expected to be channelled towards the equitable distribution of LACVIS centres to achieve optimal reach. Other improvements could focus on enhancing the spatial distribution and effectiveness of LACVIS in Lagos Metropolis by upgrading existing LACVIS with modern inspection equipment, adequately trained personnel, and digital record systems to reduce service delays and enhance operational efficiency.

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