EFFECT OF ROAD INFRASTRUCTURAL DEVELOPMENT ON BUSINESS ACTIVITIES IN KADUNA METROPOLIS, KADUNA STATE, NIGERIA.

[1]Kambai Harrison Bobai, [2] Abdulganiyu Ibrahim Adamu, [3]Sulaiman Farah Musa, [4]Aliyu Lawal Dan'iya, [5]Josephine J. Gaiya

[1,2,3,4,5]Transport Research and Intelligence Department, Nigerian Institute of Transport Technology (NITT), Zaria

harrisonkbobai@gmail.com

Abstract

This study looks into how road infrastructure in Nigeria's Kaduna State and Kaduna Metropolis affects economic development. Its goal is to evaluate the state, upkeep, and accessibility of road networks and how these aspects affect day-to-day living, corporate operations, transport expenses, and the appeal of investments. Residents of the four main local government areas of Kaduna North, Kaduna South, Chikun, and Igabi, using a systematic questionnaire to collect data. To make sure that only those who lived in these locations were included, a purposive sampling technique was used. The Krejcie and Morgan algorithm was used to calculate the sample size, which came out to be 95 respondents. The main issues cited were poor maintenance procedures, heavy traffic, mostly from inefficient traffic management, and expensive transit. The majority of respondents said that their everyday activities and enterprises are adversely affected by road conditions. Although a sizable section of the populace thinks that better road infrastructure might promote economic growth, few have actually seen how current road improvements have attracted investment. According to the study's findings, the city's economic growth is significantly hampered by its poor road infrastructure. To promote sustainable urban development, it suggests making targeted investments in traffic control, road maintenance, and policy alignment.

Keyword: Transportation, Infrastructure, Business, Maintenance, Road.

Introduction

Most people agree that building infrastructure is a major factor in both national development and economic progress. According to Calderón and Servén (2010), road networks are among the most important types of infrastructure for fostering trade, increasing productivity, and guaranteeing the smooth flow of people and products. Roads provide as the main means of transportation connecting urban areas, rural villages, and marketplaces in developing nations like Nigeria, while other transportation options like rail and air are

underdeveloped or underutilized (Oyesiku, 2002).

A major urban and economic hub in Northern Nigeria, Kaduna Metropolis is strategically important to the socio-economic development of the region because of its location and industrial potential. However, road infrastructure availability and quality have a significant impact on how well its economic systems work. Good roads can improve market accessibility, cut down on travel expenses and time, and encourage cross-sector investment. Poor road conditions, on the other hand, might discourage corporate expansion, raise vehicle running costs, and impede economic activity (World Bank,

Road congestion, potholes, inadequate drainage, and poor connectivity continue to be problems in Kaduna Metropolis despite government efforts to upgrade the city's road system. Particularly for the unorganized sector and small and medium-sized businesses (SMEs), which form the foundation of the community's economy, these issues frequently lead to delays, increased transportation expenses, and decreased productivity. Bello, S.; Abdulkadir, H.; Baba, S. U.; Sulaiman, S.; and Muhammad, A. Y. (2023).

This study examines the effects of Kaduna Metropolis's road infrastructure on its economic development. It concentrates on the effects that road quality, accessibility, and connectivity have on employment opportunities, business operations, and regional development. In addition to offering policy recommendations for Nigeria's sustainable urban growth, the research will contribute to the broader discussion on infrastructure planning.

Literature Review

Numerous academic fields, including urban planning, transportation economics, and development studies, have extensively examined the connection between road infrastructure and economic growth. Because it facilitates the efficient movement of people and commodities, lowers operating costs, and promotes market integration, road infrastructure is typically seen as a fundamental element of economic development (Calderón & Servén, 2010). Road infrastructure is essential to the development of a country because it makes it easier for people, products, and services to move around, which supports economic activity and urbanization. Road networks have a key role in determining how well urban logistics, market access, and resource

distribution work (Ipingbemi, 2008). Highways, streets, bridges, and auxiliary facilities like drainage and signage systems are all considered to be part of road infrastructure.

Road infrastructure and economic growth have been found to positively correlate in numerous studies. Public spending on infrastructure, especially roads, has a major positive impact on long-term economic output and productivity increases, according to Aschauer (1989). In the same way, Ahmed and Donovan (1992) highlighted that better road networks in low- and middle-income nations improve market accessibility, lower transaction costs, and generate economic opportunities for both urban and rural populations. Road infrastructure has been shown to have a positive impact on economic development in numerous studies. Improved access to markets and services, lower transportation costs, and increased commerce and investment are all benefits of an efficient road network (Adenikinju, 2005). Insufficient road infrastructure, conversely, results in higher vehicle operating expenses, supply delays, and decreased efficiency.

Regional and national evaluations point to a number of enduring issues. High rates of reckless passing and speeding, overcrowding and poor vehicle maintenance, lax enforcement of seatbelt and helmet regulations, and insufficient trauma and emergency response services. Annual crash statistics are provided by government organizations (such as the FRSC), which identify inadequate infrastructure and human behavior as the primary culprits. The Federal Road Safety Corps [FRSC], 2020; Adewale, 2019; Oni, 2011; Odufuwa, 2014; WHO, 2018) found that on inter-urban highways, truck and bus crashes are severe because of overloading and driver fatigue, while informal transportation modes (motorcycles, tricycles) and commercial passenger vehicles are disproportionately involved in urban crashes.

Investments in infrastructure have a major impact on reducing poverty and promoting economic growth in emerging nations, claim Fan and Chan-Kang (2005). According to their findings, building new roads not only improves mobility but also creates jobs and boosts industrial and agricultural productivity. According to Akinyosoye (2010), road transport is the most common and easily accessible mode of transport in Nigeria and is essential to both national and subnational development.

Oyesiku (2002) observed that the underdeveloped rail and air transport infrastructures in Nigeria make the road network the foundation of the country's development. However, poor road conditions continue to be a significant obstacle to realizing the full potential of economic development, particularly in cities like Kaduna where there is a high volume of vehicles and poor road maintenance.

Traffic jams, deteriorating roads, poor drainage, and bad design are just a few of the major infrastructural issues that Nigerian cities face. These issues are especially noticeable in cities like Kaduna that are expanding quickly. Odeleye (2001) asserts that inefficient corporate operations and increased transportation costs are caused by inadequate road infrastructure in urban areas. According to Abam and Okogbue (2011), these issues are frequently made worse by a lack of maintenance culture, inadequate budget, and fast urbanization.

Nigerian urban centers have serious infrastructure problems. According to a research by Olukoju (2003), years of neglect, a lack of financing, and bad planning have caused urban roads in Nigerian cities to deteriorate. Road accidents, traffic congestion, and corporate inefficiencies have all worsened as a result of these shortcomings. As a developing industrial center, Kaduna is not immune to these problems. Road infrastructure has a big influence on regional economic growth. By connecting producers to markets and workers to job opportunities, roads promote economic inclusiveness. According to Eddin (2016), having a decent road network promotes local economic growth by increasing commercial activity, cutting down on travel time, and improving access to social infrastructure.

According to the World Bank (2017), every hour saved on transportation time boosts productivity, lowers logistical costs, and facilitates access to healthcare, education, and markets. A well-designed, built, and maintained system of connected roadways that offers accessible, dependable, safe, and efficient transportation for people, products, and services is known as a good road network. Through high-quality design, safety measures, and routine maintenance, it guarantees connectivity between urban and rural areas, promotes economic growth, improves social access to necessary services, and lowers travel hazards (World Bank, 2017; Ogunbodede, 2019; WHO, 2018). Road quality has a direct impact on the cost structure and delivery methods of SMEs and

informal companies, which make up the majority of the urban economy in Nigeria.

According to Oboh and Ozughalu (2017), bad road conditions frequently cause logistical difficulties for small enterprises in Nigerian cities, which impedes business growth and lowers profit margins. Effective road systems are essential for drawing in investment, lowering unemployment, and promoting economic competitiveness, according to a 2014 study by Adeyemi and Ibitoye on the influence of transport infrastructure on urban growth in southwest Nigeria. This result lends credence to the claim that road infrastructure is crucial to the development of metropolitan economies.

The condition of road infrastructure is especially important to Nigeria's informal economy and small and medium-sized businesses (SMEs), which control the country's metropolitan markets. According to a study by Eze et al. (2013), bad road conditions and logistical difficulties cause SMEs to lose time and money. Reliable roads promote corporate growth, minimize vehicle wear and tear, and cut down on delivery delays. Due to potholes, traffic congestion, and inadequate road construction, delivery vans may spend two to four hours longer than planned in crowded Nigerian cities like Lagos, Ibadan, or Kaduna (Oni, 2011). Bypasses, improved traffic flow, and road renovation can cut delivery delays by one to two hours (Ogunbodede, 2019).

The economy of Kaduna Metropolis, a vital urban hub in Northern Nigeria, is largely dependent on road transport. But the city's problems with deteriorating road systems, poor maintenance, and insufficient connectivity have persisted. According to a 2019 Ibrahim report on Kaduna's transport system, poor road infrastructure deters investment and reduces urban output. Although the problems affecting Kaduna's roadways are indicative of larger national problems, localized remedies are necessary for significant progress. Kaduna Metropolis stands to gain a great deal from better road infrastructure because of its advantageous placement as a bridge between Northern and Southern Nigeria. However, research like that done by Yusuf (2017) demonstrates that Kaduna's road networks are hampered in their ability to sustain long-term economic growth by subpar drainage systems, poor design, and maintenance errors.

Methodology

Residents of the four main local government areas Kaduna North, Kaduna South, Chikun, and Igabi were asked to complete a

standardized questionnaire as part of this study. To guarantee that participants who live in these local government regions were included, a purposive sampling technique was used. The sample size, which consisted of 95 respondents overall, was determined using the Krejcie and Morgan sample size determination formula. A random selection method was used to distribute structured questionnaires to each respondent from these local government regions in order to ensure fair and unbiased representation. Before being widely distributed, the questionnaire was pre-tested with a small group of riders to guarantee its validity and consistency. Descriptive statistics were then used to analyses the data using the Microsoft Excel Package. Using a quantum geographic information system (QGIS), the Kaduna state map is created to show the study areas

Study Area

Kaduna Metropolis is located in the north-western region of Nigeria and serves as the capital of Kaduna State. Geographically, the metropolis lies between latitudes 10°20'N and 10°37'N and longitudes 7°17'E and 7°45'E. It is one of the most prominent urban centres in northern Nigeria and plays a central role in the economic, political, and administrative affairs of the region.

The four main Local Government Areas (LGAs) that comprise Kaduna Metropolis are Igabi, Chikun, Kaduna North, and Kaduna South. These neighborhoods, which are home to a variety of commercial, industrial, and residential activities, make up the city's urban population center. With a population of about 1.5 million, Kaduna Metropolis is thought to have had significant growth in recent years due to both natural rise and rural-urban migration, according to the National Population Commission (NPC, 2006).

In Nigeria, Kaduna is a significant center for communication and transportation. A road network connects the city to other regions of the nation, such as Jos, Zaria, Abuja, and Kano. A vital link in the country's logistics network, it also has a rail line and an airport. Nonetheless, the majority of transportation within and between cities is still accomplished by vehicle, which puts a great deal of strain on the city's road system.

Kaduna Metropolis has a diversified and vibrant economy. It is home to a number of manufacturing sectors, governmental buildings, educational institutions, and businesses. Kakuri and Kudenda are notable industrial areas, and Sheikh Abubakar Gumi Market and Central Market are important trading hubs. Poor road infrastructure,

particularly in inner-city regions and access points to industrial zones, is a major obstacle to effective corporate operations and economic growth despite this potential. The economic importance of Kaduna Metropolis, its strategic location as a transport hub, and the noticeable infrastructure issues impeding its expansion all played a part in the decision to choose it as the research region. The goal of the study is to investigate how the present condition of road infrastructure affects the economy.

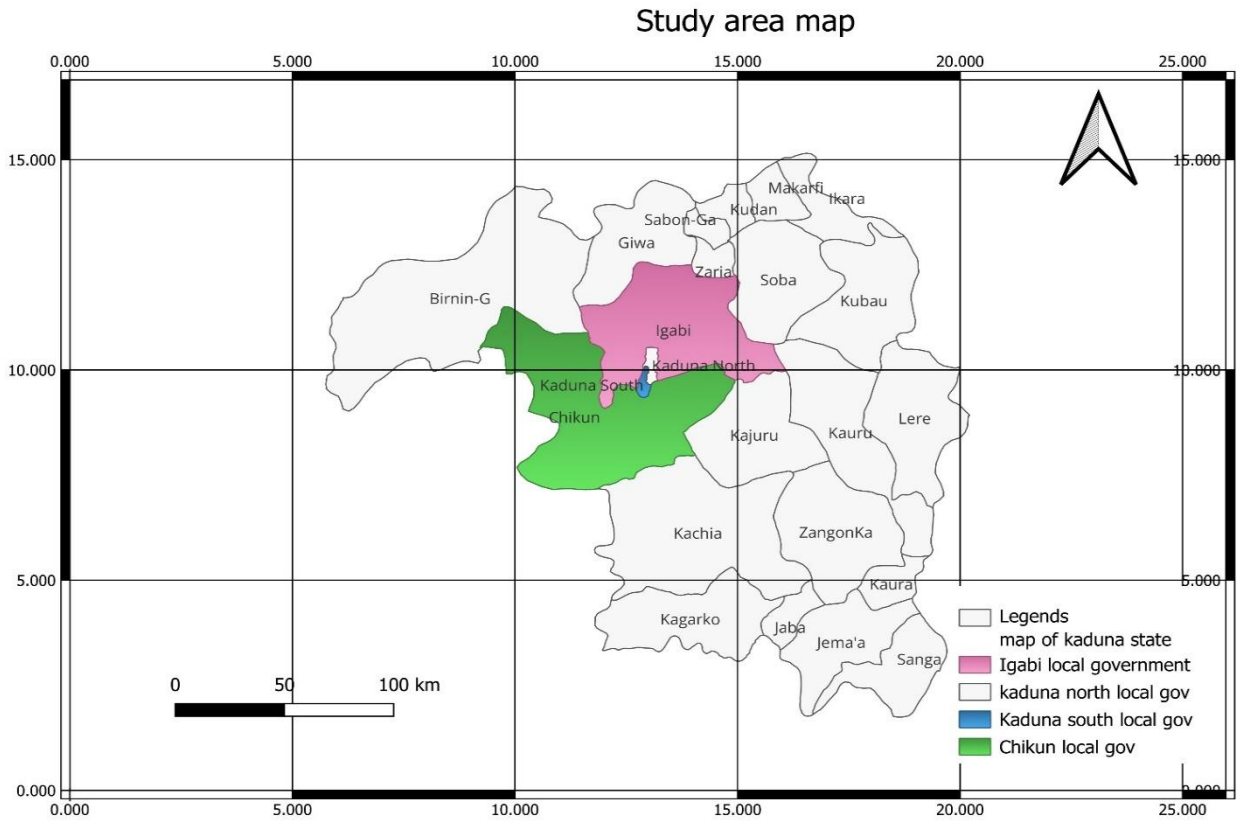
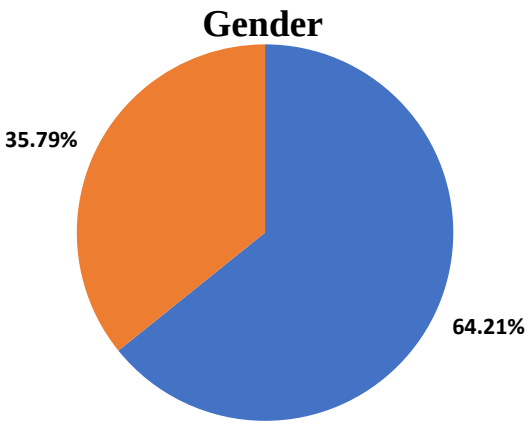


Fig 1: Map of Kaduna State



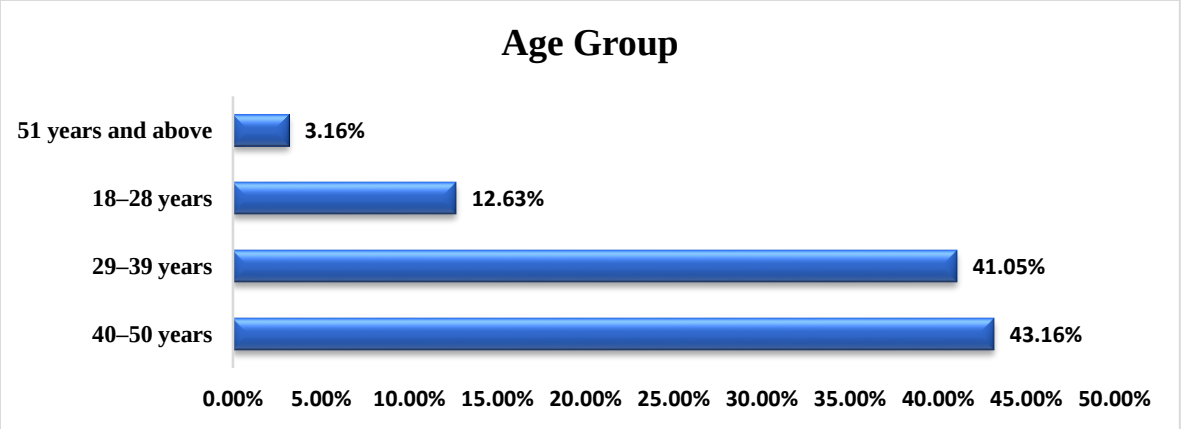
Source: Author's Fieldwork 2025

Figure 1, Showing gender respondents

There were 95 responders in all, with roughly 64% of the sample being men and 36% being women. This shows that women are relatively under-represented in the study population, whereas men make up the majority. The gender disparity may be related to the demographics of Kaduna Metropolis's active road users rather than sampling bias.

Men are more likely to be involved in jobs requiring mobility, such as commercial transportation (drivers, riders, logistics operators), in several Nigerian cities, including Kaduna. These sectors are more represented in the study since they are usually more directly impacted by the state of the road infrastructure. The lower percentage of women may be explained by their less intensive road usage habits or their greater reliance on secondary forms of transportation, even though they are actively involved in trade and other economic endeavours.

This distribution implies that the development of road infrastructure may have gendered effects, with a higher proportion of direct advantages or difficulties being experienced by men. Nonetheless, the noteworthy percentage of female participants (36%) underscores their crucial function in social and economic endeavours that rely on dependable road systems. For the Kaduna Metropolis to benefit equally from improvements in road infrastructure, policymakers and planners should take into account both the mobility demands of men and women.



Source: Author's Fieldwork 2025

Figure 2, showing the respondents by Age Group

According to the respondents' age distribution, the majority are between the ages of 29 and 50, indicating that they are in their most productive and successful working years. This suggests that the majority of the sample consists of individuals who are actively involved in business, employment, and mobility-related activities, all of which expose them to the consequences of road infrastructure. The 18–28 age group makes up a lesser percentage of the sample and is probably made up of young people and people in their early careers whose interest in business or transportation-related activities is still growing. However, the poor involvement of elderly persons is reflected in the small number of respondents who are 51 years of age or older.

Given that economically active adults use the roads the most and are thus most affected by road conditions, this distribution implies that the study predominantly represents their viewpoints. Given that this group is the foundation of Kaduna Metropolis's productivity and economic growth, their answers offer important insights into how the improvement of road infrastructure impacts commercial operations, commuter efficiency, and overall economic performance. The under-representation of elderly respondents can be a result of their lower levels of mobility and active economic role participation.

Table 1: Poor Road Conditions Affected Daily Activities

Response	Count	Percentage
Yes	63	66.3%
No	32	33.7%
Total	95	100%

Source: Author's fieldwork, 2025

According to the findings, 66.3% of participants stated that inadequate road infrastructure has a detrimental impact on their day-to-day activities, such as travelling to work or school, managing enterprises, and reaching markets or medical facilities. This suggests that poor road conditions cause direct interruptions in mobility and production for a sizable majority of the population. Some people may reside in places with superior road networks, have access to other forms of transportation, or have daily routines that demand less reliance on driving, as evidenced by the 34.7% of respondents who said that their daily activities are unaffected.

The results demonstrate the close relationship between road infrastructure and Kaduna Metropolis residents' quality of life. Bad roads impede access to necessary services, lower business productivity, and limit prospects for economic activity in addition to increasing travel time and expenses. This directly affects most citizens in terms of lost production, lower income, and social annoyance.

These findings highlight the critical need for government action, especially in the form of repairing degraded roads, guaranteeing year-round accessibility (particularly during wet seasons), and implementing routine maintenance plans. In Kaduna Metropolis, addressing these infrastructure issues will increase social well-being, healthcare accessibility, economic productivity, and mobility.

Table 2: Traffic Congestion responses

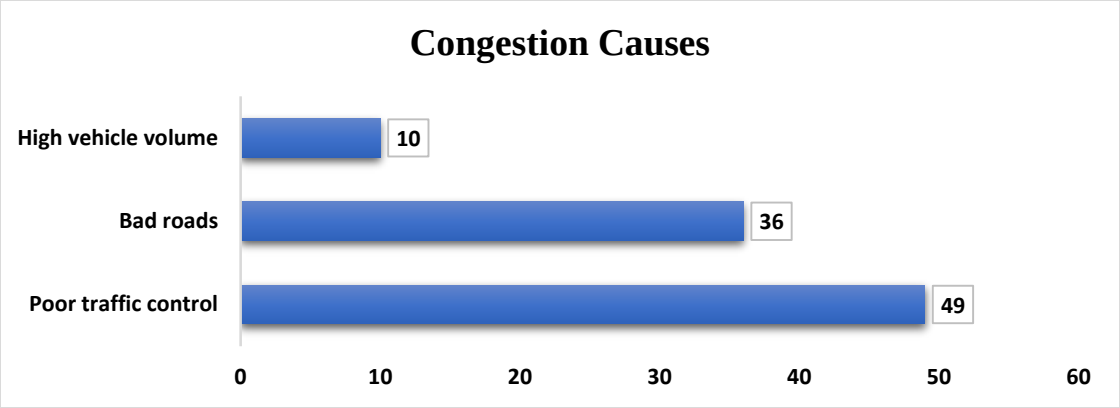
Traffic Congestion	Count	Percentage
Yes	59	62.1%
No	36	38.0%
Total	95	100%

Source: Author's fieldwork, 2025

According to the survey, 38.0% of respondents say they do not face traffic congestion in their location, whereas 62.1% say they do. This implies that traffic is a serious urban problem that impacts most road users in Kaduna Metropolis. It is evident that congestion is not only common but also structurally connected to infrastructural and management deficiencies when taken into account in conjunction with past findings such as inadequate traffic control methods, degraded road surfaces, and bad road infrastructure.

Longer commutes, more fuel use, decreased productivity, and higher stress levels are just a few of the far-reaching effects of traffic congestion. Congestion causes supply chain inefficiencies, delivery delays, and increased operational expenses for organizations. It ultimately lowers citizens' quality of life by making it more difficult for them to access necessities like markets, schools, and medical facilities. These results demonstrate the pressing necessity for all-encompassing solutions. Particularly: Better traffic control mechanisms, like operational traffic signals, roundabouts, and the implementation of traffic-use laws.

Road networks should be expanded and renovated in order to clear important thoroughfares and establish other routes. Reforms to urban transport planning, such as funding public transport networks, non-motorized transportation options, and zoning laws to ease the burden on central regions. By tackling these issues, Kaduna Metropolis would be able to maintain its growth and competitiveness while also greatly enhancing social well-being, economic efficiency, and urban mobility.



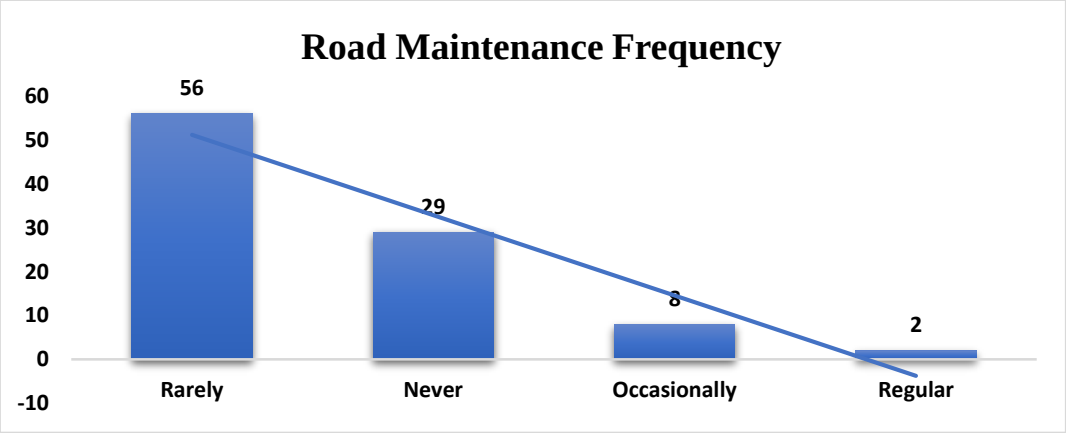
Source: Author's fieldwork, 2025

Figure 3, showing the respondents by Congestion Causes of Traffic

The results show that, according to more than 51% of respondents, inadequate traffic regulation is the main perceived cause of congestion. Inadequate roundabouts, broken traffic lights, and lax enforcement of traffic laws are examples of systemic flaws in traffic flow management. Furthermore, 38% of respondents blamed poor roads for traffic, highlighting how potholes, narrow roads, and deteriorating infrastructure all contribute to slower vehicle flow. 10.5% of respondents associated congestion with a high volume of vehicles, indicating that although increasing motorization plays a role, it is not the primary cause.

According to the distribution of replies, inadequate traffic management methods and bad infrastructure are more to blame for Kaduna Metropolis's traffic congestion than an excess of cars. The findings demonstrate how urgently these structural problems need to be addressed through interventions. In order to successfully reduce congestion, efforts should focus on: repairing and enlarging current highways to increase their capacity and lessen traffic jams. Putting in and keeping up working traffic lights at important intersections to improve flow control. Deploying skilled traffic officers to control traffic during peak hours and enforce traffic laws.

Congestion in Kaduna Metropolis can be greatly decreased by addressing these underlying reasons, which will improve traffic flow, boost output, and increase economic efficiency. Over time, these kinds of actions would improve the entire urban transport system in addition to making daily commute easier.



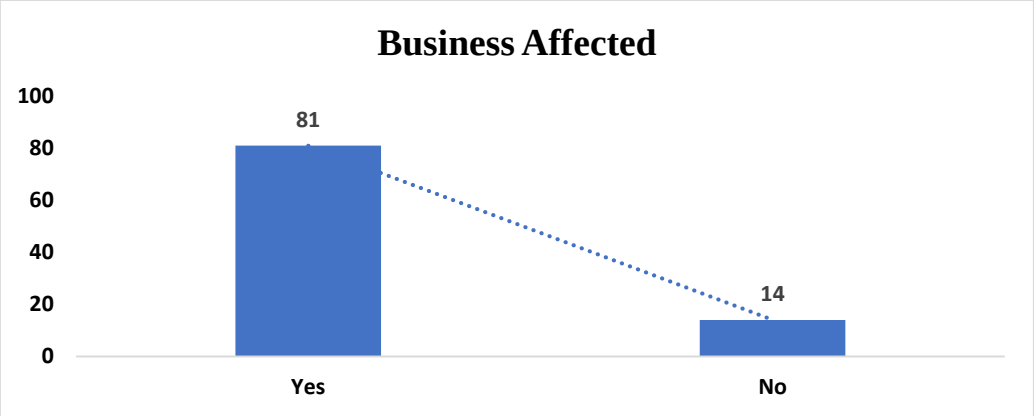
Source: Author's fieldwork, 2025

Figure 4, showing the respondents by Road Maintenance

Approximately 89% of respondents said that road maintenance in Kaduna Metropolis occurs infrequently or never, according to the statistics, while only 10.5% said that there is occasional or regular maintenance. This overpowering sense of neglect highlights a significant weakness in the way policies are implemented and infrastructure is managed. Because minor flaws like potholes, surface cracks, and drainage failures go unchecked until they become serious structural damages, irregular maintenance directly leads to road deterioration. In addition to reducing road longevity, this raises the cost of future repair initiatives. Rising transport expenses, vehicle wear and tear, commute delays and decreased safety are the results for road users.

Businesses and urban productivity are negatively impacted by inadequate road maintenance from an economic perspective. Delays in deliveries, increased logistics expenses, and limited access to markets or services all make local businesses less competitive and impede economic expansion.

These results demonstrate the critical need for planned and methodical road maintenance initiatives in Kaduna Metropolis. Road infrastructure would last longer with routine maintenance, preventative care, and prompt repairs, which would also reduce long-term expenses and increase road safety. Crucially, as part of sustainable urban development, institutional changes might be necessary to guarantee that road repair is planned, budgeted for, and carried out consistently rather than reactively.

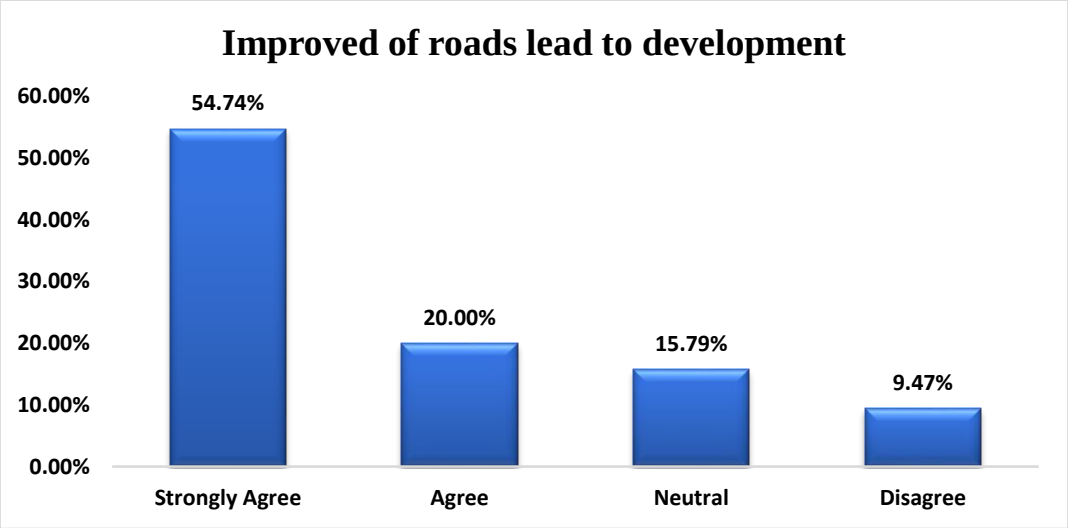


Source: Author's fieldwork, 2025

Figure 5, showing the respondents by Business Affected

According to the research, a noteworthy 85% of participants stated that their business or revenue has been adversely impacted by inadequate road infrastructure, whereas only 15% said that their firms were unaffected. This resounding majority highlights the immediate and significant economic effects of poor road conditions in Kaduna Metropolis.

The negative effects mentioned are in line with the difficulties that subpar infrastructure usually brings. Among these are: Disrupted supply chains, missed deadlines, and perishable product degradation due to delays in transit. Increased expenses for logistics when carriers raise their rates to compensate for fuel use, traffic delays, and repairs. Decreased customer accessibility, as bad roads deter customers from visiting particular business sites. For companies that depend on transportation, vehicle damage and maintenance costs reduce profit margins. These results support the idea that road infrastructure is essential to economic activity and the long-term viability of businesses, not just for transportation. Given the sizeable percentage of respondents who expressed negative effects, it is possible that poor road conditions might significantly impede urban economic growth in Kaduna Metropolis by deterring investment and lowering competitiveness.



Source: Author's fieldwork, 2025

Figure 6, showing the respondents by Improved of Roads Lead to Development

According to the study, about 75% of participants agree or strongly agree that better road infrastructure is essential for promoting development. This suggests that there is widespread agreement among locals that roads in Kaduna Metropolis are a driving force behind social progress and economic expansion. Neutrality was stated by a lesser percentage of respondents, which can be due to a lack of direct exposure to the advantages of infrastructure improvements or conflicting individual experiences with previous road interventions. Only a small percentage disagreed, indicating that there is not much resistance to the connection between roads and development.

The widespread acceptance of road infrastructure's developmental function highlights the importance of its effects, which include better connectivity between urban and rural areas, increased market accessibility, lower transportation costs, more mobility, and the creation of jobs. In addition to making it easier for people to transport goods and services, roads also make it easier for people to access healthcare, education, and other necessities, which promotes social progress.

These results offer compelling evidence in favour of giving road infrastructure investment top priority within Kaduna Metropolis's broader development policies. The findings highlight that effective, easily accessible, and well-maintained road networks are essential for achieving sustainable urban and regional expansion,

which is consistent with both national and international data.

Discussion of Findings

The impact of road infrastructure on Kaduna Metropolis' economic development was investigated in this study. It is clear from the replies received that the area's road infrastructure is generally in bad shape. The majority of respondents rated the roads as fair or bad, indicating that they are not well-maintained and may not facilitate safe or easy travel. The fact that just a small percentage of participants thought the roads were in good or very good condition indicates that there is a lack of high-quality road infrastructure.

Another big issue is road accessibility. Access roads are feeder or subsidiary roads that link local communities, farms, industrial locations, and residential neighbourhoods to major roads, highways, or arterial roads. They offer the crucial "last-mile" connectivity that enables the movement of people, products, and services between more extensive transportation networks and smaller locations. The roads are inaccessible all year round, especially during the wet season, according to a number of responders. Those who depend on road travel for employment, business, and service access are particularly affected by this seasonal inaccessibility, which limits mobility and impedes economic activity.

The majority of respondents concurred that bad road conditions have raised their transport expenses in terms of the economic impact. Among the factors contributing to these increased expenses are longer travel durations, more frequent auto maintenance, and increased fuel usage. Also, most said that the poor road conditions have had a detrimental impact on their business operations and revenue. It frequently interferes with everyday tasks including transporting goods, going to work, and accessing marketplaces.

The majority of respondents agreed when asked if better roads can spur development. This demonstrates a widespread awareness that growth depends on having a strong infrastructure. However, many people gave unfavourable answers when asked if the current road improvements have drawn in additional investment or company. This implies that there may be a discrepancy between the anticipated advantages of road construction and the actual outcomes.

Another prevalent problem in Kaduna Metropolis is traffic congestion. Vehicle movement along a road or route over a

specified amount of time is known as traffic flow. Typically, it is expressed as the number of cars that pass a given location either daily (AADT, or Average Annual Daily Traffic) or hourly (hr). A sizable portion of the population frequently deals with congestion. Rather than the volume of vehicles, the majority of them blame this on inadequate traffic management and the state of the roads. This implies that improved road upkeep and traffic control might greatly lessen congestion.

The answers also show that many places have little to no road upkeep. One factor contributing to the poor condition of infrastructure is the apparent lack of planned and frequent road repairs. Roads that are not regularly maintained rapidly deteriorate, making issues for both businesses and commuters worse.

The results demonstrate how insufficient and badly maintained the road system is in Kaduna Metropolis. As a result, there are now higher expenses, business interruptions, traffic jams, and less interest from investors. Although the potential of better roads to spur economic growth is widely believed, the state of affairs now falls short of expectations, indicating the need for stronger planning, funding, and continuous upkeep.

Recommendations

Recommendations are made to improve road infrastructure and stimulate economic development in Kaduna Metropolis.

- State and local governments ought to set up a systematic and long-lasting road maintenance program. Road conditions will not deteriorate and long-term usability will be ensured by timely repairs and routine inspections.
- Poorly maintained roads should be rebuilt using long-lasting materials appropriate for the environment of the area. Furthermore, building bypasses in busy regions and enlarging important routes will reduce traffic and encourage more economic activity.
- Installing functional traffic signals, sending out trained traffic personnel, and implementing sophisticated traffic management systems can all help alleviate traffic congestion brought on by inadequate traffic control? These initiatives will shorten wait times and enhance the movement of people and products generally.
- Major roadways should have drainage systems built or upgraded to stop

erosion and floods during the wet season. Roads will remain useful all year round thanks to this, particularly in places where seasonal disruptions are common.

- To optimize their impact, road infrastructure projects must to be coordinated with markets, industrial zones, residential neighborhoods, and business districts. Key economic activities are supported by infrastructure, which draws investment and increases productivity.
- In order to create and maintain road infrastructure, the government needs work with partners from the private sector. PPP models have the potential to enhance public resources by attracting investment, innovation, and efficiency.
- A system for monitoring and evaluating road projects should be created in order to keep tabs on their impact, quality, and progress. This promotes public trust in government infrastructure projects, guarantees accountability, and finds holes early.
- It is important to encourage residents and drivers to report issues with flooding, unlawful barriers, and damaged roads. Decision-makers can more efficiently determine priorities and allocate resources with the help of community input.

Conclusion

Poor road infrastructure has a detrimental impact on two out of every three respondents' everyday activities. Nine of ten respondents think that poor or non-existent road upkeep exacerbates urban problems. The primary reasons of traffic congestion, according to six out of ten respondents, are deteriorating roads and inadequate traffic management, not an excessive number of vehicles. There are significant economic ramifications, as evidenced by the fact that over four out of five respondents (85%) stated that inadequate road infrastructure has negatively impacted their business or revenue. The public highly supports road investments, as seen by the three out of four respondents who strongly associate development with better road infrastructure.

All things considered, the data makes it abundantly evident that Kaduna Metropolis's inadequate road system is a social and financial burden. The results validate the general consensus that road construction and

upkeep are essential to advancement, improved transportation, and sustainable urban growth.

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