

Impact of Road Dualization on Mobility of Households in Ikeja, Nigeria



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KEY WORDS

Road Dualization, Mobility, Impacts and Measuresl

ABSTRACT

Many non-dualized roads are being dualized to accommodate population explosion of cities. This research examines the impact of road dualization on mobility of households in Ikeja. The study utilized primary and secondary data which were subjected to descriptive and inferential statistics. Systematic sampling technique was used to administered 384 copies of questionnaires to residents in purposely selected areas (Ikeja, Opebi and Ojudu) with recent dualized roads. Factors of Road Dualization Index (FRDI), and Impact of Road Dualization Index (IRDI) were used to examine the factors influencing road dualization and the impact on mobility of households. ANOVA was used to test the variation on the impact of road dualization on households. The result revealed that more than half (52.6%) of the households use car as their mode of transport before road dualization while the figure increases to 67.2% after the road was dualized with a drastic reduction in the use of bicycle, tricycle and motorcycle. There is a significant variation ($F = 5.36$, $P = 0.006$ at 0.5%) on mobility of households. Majority of the roads were not in good condition before they were dualized with several factors such as road accidents, presence of potholes, narrowness of road, poor traffic indicators and congestion being the major factors for the road dualization. Advantages of road dualization in the study area are: creation of employment opportunities; increase in economic activities and infrastructural development. Impact of road dualization are: displacements of households, loss of biodiversity, increase transport infrastructure and employment opportunities among others. While, variation exists (P value $<$ the confidence value $= 0.005$) across the three sampled locations. The study recommends households education, compensation for displaced households, reforestation etc. This will reduce the negative impacts of road dualization on households.

1. INTRODUCTION

Transportation is crucial for economic development, serving as both a reflection of economic activity and a key indicator of a country's progress. A well-developed transportation network enhances economic activities by improving accessibility and facilitating the movement of goods and services,

including agricultural products, throughout a country. As societies and economies become more complex, the importance of transportation increases, with demand driven by the need for goods and personal travel. Historically, transportation methods were rudimentary, but the efficiency of modern transport systems, particularly road networks, is vital for industrial, agricultural, and service sector development.



In Nigeria, road transport is the most widely used mode, accounting for over 90% of transportation activities and contributing significantly to the GDP. The predominance of road transport is due to the poor state of alternative transportation methods. Dual carriageways, a type of road with separate lanes for opposite traffic directions, have improved safety and increased capacity for traffic flow. They play a critical role in connecting rural and urban areas, supporting the distribution of goods, services, and labor, and contributing to economic and political functions. Road dualization, a government policy aimed at infrastructure development, has numerous benefits, including reduced transportation costs, increased accessibility, and job creation. However, it also has negative impacts, such as environmental damage, displacement of households, and traffic congestion during construction.

Urbanization in Nigeria has led to significant challenges, including haphazard city growth and increased pressure on infrastructure. While road development is essential for socio-economic growth, the environmental consequences are significant and often overlooked. Limited planning and regulatory challenges, coupled with low environmental awareness, have hindered the effective monitoring of road projects. In the context of Ikeja, a major city in Lagos State, road dualization has had both positive and negative impacts on household mobility and the environment, highlighting the need for balanced development that considers both economic and environmental factors.

2. METHOD

The study uses both primary and secondary data, data collected were subjected to both descriptive

and inferential statistics. Three communities (Ikeja, Opebi and Ojodu) with recent road dualization were purposely selected. The population (335,719) of these three communities as projected to 2023 constitute the sampling frame. Three hundred and eighty-four (384) copies of questionnaires were administered systematically in the area. This figure was arrived at using the Research Calculator for large sample size at 95% confidence level and 5% (0.05) degree of freedom of Krejcie and Morgan (1970) and published by Research Advisors (2006). Two indices were generated for the study, these are; Factors of Road Dualization Index (FRDI), and Impact of Road Dualization Index (IRDI). FRDI was used to determine the factors that triggered road dualization while IRDI was used to assess the impact of road dualization on mobility of household in the study area. Both indices were subjected to Likert scale of Strongly Agree (5), Agree (4), Indifferent (3), Disagree (2) and Strongly Disagree (1). ANOVA was used to test the variation on the impact of road dualization on residential neighborhood across the three sampled locations.

3. RESULT AND DISCUSSION

Mode of Household Transportation

Result on Table 1 revealed that 52.6%, 30.7%, 7.0%, 6.2% and 3.4% uses car, motorcycle, tricycle, foot and bicycle respectively in the study area. In Ikeja, about half (49.4%) uses car while no respondents use bicycle before the road was dualized. In Ojodu, larger proportion (61%) uses car as their mode of transportation while no respondents transport by foot. More respondents (44.4%) use car in Opebi than any mode of transportation while nobody uses bicycle. Consequently, from the chi square analysis it can be deduced that there is no significant relationship among the mode of transportation before the road was dualized



across various location in the study area at P value less from 0.05.

The result on mobility of households after road dualization is presented in Table 2. It was observed that more than half (56.8%) uses car as their mode of transportation in Ikeja, 63.9% in Opebi and larger proportion (82.9%) in Ojodu. No household travel by Tricycle, Bicycle and by Foot in the study area with the exception of few (11.8%) households which travel by tricycle in Ojodu. In the study area, larger proportion (67.2%) uses car as their mode of transport while no respondents use bicycle and foot. The analysis of household mobility before and after road dualization revealed that car is the major mode of transportation. After the road dualization, car usage significantly increased across all locations in the study area (Ikeja, Ojodu, Opebi). This suggests that the improved road infrastructure made car travel more convenient and attractive for households. This implies that road dualization improved household mobility by promoting the use of cars as the dominant transportation mode.

On the other hand, no respondents' travel by foot, bicycle and tricycle after the road dualization. This presupposes that it also had the unintended consequence of discouraging non-motorized and tricycle transportation due to safety concerns on the dual carriageway. Non-motorized transportation modes, such as walking and bicycling, saw a sharp decline after the road dualization. Similarly, tricycle usage dropped substantially, with only a small fraction of households in Ojodu continuing to use tricycles. This decline may be attributed to safety concerns, as the dual carriageway likely led to higher vehicular speeds, making it riskier for pedestrians, cyclists, and tricyclists to use the road. The shift away from walking, cycling, and tricycling highlights the need for infrastructure that ensures the safety of all road users, particularly non-motorized transport users, on dual carriageways.

The absence of non-motorized transportation after road dualization suggests that the dual carriageway's design prioritized vehicular traffic at the expense of pedestrian and cyclist safety.

The high speeds and increased traffic volume on dual carriageways may have discouraged these modes of transportation, highlighting a potential gap in road design for vulnerable road users. Dual carriageway is usually associated with high level of vehicular speed which is highly dangerous for pedestrian, bicycle and tricycle traffic. Hence, road dualization helps to improve household mobility at the expense of non-motorized transportation. Consequently, the chi square analysis revealed that there is significant difference in the distribution of the primary mode of transportation after the road was dualized across various location in the study area at P value less than 0.05.

Variation in the mode of household transportation before and after road dualization among the study area was tested using the Analysis of Variance (ANOVA). The result of the statistical test as presented in Table 3 revealed that there is a significant variation ($F = 5.36$, $P = 0.006$ at 0.5% confidence level) in the mode of transportation before and after the road was dualized in the three in the study area. This statistical result conforms with the earlier result on mobility of household before and after road dualization. The statistical analyses (Chi-square and ANOVA) confirm that road dualization led to significant changes in transportation patterns. Before the dualization, there was no significant difference in transportation modes across the locations. However, after dualization, a clear shift towards car usage occurred, indicating that the road upgrade had a considerable impact on household transportation behavior.

Road dualization appears to have enhanced mobility for car users, making car travel the dominant mode of transportation. This indicates that the dualization likely reduced travel time and improved the overall efficiency of road use for drivers. Although car usage increased, the lack of alternative transportation options, such as safe cycling and walking paths, could contribute to future traffic congestion. As more people rely on cars, the roads may become congested, reducing the long-term benefits of the dualization. The findings suggest a need for more inclusive road design that accommodates all road users, not just drivers. To promote



sustainable and safe transportation, future infrastructure projects should consider integrating pedestrian walkways, bicycle lanes, and other features that encourage the use of non-motorized transportation. While all locations saw increased car usage, the extent varied, with Ojodu experiencing the highest increase. This could reflect differences in socioeconomic status,

accessibility, or local infrastructure, suggesting that road dualization may have uneven impacts depending on the area. These findings point to the broader implications of road infrastructure projects, highlighting both the benefits and potential drawbacks of prioritizing vehicular traffic over more sustainable transportation modes.

Table 1: Mobility of Household before Road Dualization

Locality	Mode of Transportation											
	Tricycle		Motorcycle		Car		Bicycle		By foot		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Ikeja	13	7.4	60	34.1	87	49.4	0	0.0	16	9.1	176	100
Ojodu	8	5.9	32	23.5	83	61.0	13	9.6	0	0.0	136	100
Opebi	6	8.3	26	36.1	32	44.4	0	0.0	8	11.1	72	100
Total	27	7.0	118	30.7	202	52.6	13	3.4	24	6.2	384	100

Source: Field Survey, 2024

Table 2: Mobility of Households After Road Dualization

Locality	Mode of Transportation											
	Tricycle		Motorcycle		Car		Bicycle		By foot		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Ikeja	0	0.0	76	43.2	100	56.8	0	0.0	0	0.0	176	100
Ojodu	16	11.8	8	5.9	112	82.3	0	0.0	0	0.0	136	100
Opebi	0	0.0	26	36.1	46	63.9	0	0.0	0	0.0	72	100
Total	16	4.2	110	28.6	258	67.2	0	0.0	0	0.0	384	100

Source: Field Survey, 2024

Table 3: ANOVA Table

	Sum of Square	Df	Mean Square	F	Sig	Remarks
Between Groups	7.198	2	3.599	5.360	0.006	Significant
Within Groups	94.004	140	0.671			
Total	101.202	142				

Source: Field Survey, 2024

Relationship between the type of Road and the Condition of Road before Dualization

The result on respondents' perception on condition of the road before dualization as presented in Table 4 revealed that about half

(50.5%) of the respondents agrees that the state of the road before dualization was fair. More than half (54.1%) of the respondents revealed that the road was tarred and good while about half (45.9%) revealed that they were tarred and fair. All untarred roads were either fair (59.2%), poor (21.7%) or very poor (19.1%). Most (55.6%)



of the graded road were poor. From the foregoing, it is evident that most of the road were not in good state before they were dualized and about half were tarred roads across the study area. this implies that that while the roads were usable before dualization, they were likely inadequate for increasing traffic demands. Also, Although a significant portion of the roads were tarred, their condition varied. Over half (54.1%) of the respondents considered the tarred roads to be in good condition, while nearly half (45.9%) rated them as fair. This indicates that even tarred roads required improvement, contributing to the decision to dualize.

This influences the need for the dualization project. The poor state of many roads, particularly untarred and graded roads, likely played a significant role in the decision to dualize them. The previous road conditions posed a threat to effective mobility, and improving these roads was likely seen as essential to enhancing transportation and reducing congestion in the study area. The mixed perceptions of road

quality (ranging from fair to very poor) suggest that while some parts of the road network were acceptable, others were problematic. The overall dissatisfaction with road conditions may have increased public demand for improvements, pressuring decision-makers to prioritize road dualization. The decision to dualize the roads likely stemmed from a need to address the mobility challenges caused by the previous road conditions. Poor and fair roads, especially those that were untarred or graded, would have hindered efficient travel, making dualization a necessary intervention to improve accessibility and traffic flow. The poor condition of roads before dualization likely had a negative impact on road users, contributing to delays, increased vehicle wear and tear, and potential safety hazards. The dualization tends to alleviate these issues, improving the overall experience for road users in the study area. in other words, the dualization of the roads appears to be a strategic response to the identified weaknesses in the road network.

Table 4: Condition of Road before Dualization

Locality	Condition of Transportation									
	Good		Fair		Poor		Very poor		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Tarred	93	54.1	79	45.9	0	0.0	0.0	0.0	172	100
Untarred	0	0.0	71	59.2	26	21.7	23	19.1	120	100
Graded	5	6.9	27	37.5	40	55.6	0	0.0	72	100
Not certain	0	0.0	17	85.0	3	15.0	0	0.0	20	100
Total	98	25.5	194	50.5	69	18.0	23	6.0	384	100

Source: Field Survey, 2024

Households Perception on Factors and Advantages of Road Dualization

The calculated Factors of Road Dualization Index (FRDI) on Table 5 revealed households' perception on factors of road dualization in the study area. The FRDI values were divided into

two: the FRDI value with positive deviation above the mean FRDI value (2.49) have higher influence than those with negative deviation below the average FRDI value. Analysis of the findings revealed that Road Accidents is the major factor of road dualization with FRDI value of 3.11 and 0.62 deviation above the mean. Next



in rank were: poor road condition or presence of pothole (2.91); crime and security of road users (2.84); narrowness of road (2.65); poor traffic indicators (2.61); and traffic congestion (2.60). Those with minor influence on road dualization were: on and off-street loading (1.94); absence of pedestrian facilities (2.0); encroaching on right of way (2.05); poor parking facilities (2.30); and delay in travel time (2.33). Road accidents was the major factors that prompted road dualization in the study area. Others are; poor road condition, crime and risk of road users, narrowness of road, poor traffic indicators and traffic congestion. All these factors either separately or combine may have contributed to the decision of government on road dualization in the study area. Road accidents alone has a great deal of negative impact on road users. Majority of its outcome are not reversible and may render many hopeless as it claims lives and properties. Therefore, any sane government would provide possible solutions at their disposal to reduce the menace (i.e road accidents) to the barest minimum. However, with road accidents being the major problems of road users and factor contributing to road dualization, households' mobility is largely by car while some travel by foot, bicycle and tricycle without giving recourse to the occurrence of road accidents along their travelling path. The perception of household on advantages of road improvement were presented on Table 6. The result revealed that road dualization has advantages on households. These are: infrastructural development (42.4%), increase in economic activities (40.9%) and employment opportunities (16.7%). No households responded otherwise. Across the three wards, the major advantages of road dualization was infrastructural development while the least was employment opportunities. This finding implies that road accidents were perceived as the most significant factor

influencing the decision to dualize the roads. This suggests that the frequency and severity of road accidents were major concerns that prompted the dualization project. Poor road conditions or the presence of potholes were also significant factors. This indicates that deteriorating road conditions contributed to the decision for dualization. The third factor (2.84) underscores the importance of crime and security concerns for road users, suggesting that improving road safety and reducing crime were key considerations. The narrowness of roads and poor traffic indicators were also important factors. This reflects concerns about road capacity and the adequacy of traffic management systems. Traffic congestion was a notable factor, suggesting that alleviating congestion was a significant goal of the road dualization. However, factors such as on and off-street loading and the absence of pedestrian facilities were perceived as having minor influence on the need for road dualization. This implies that while these issues were present, they were less critical compared to other factors. Similarly, encroaching on the right of way and poor parking facilities were seen as less influential. Despite the road dualization addressing factors like road accidents, the primary mode of transportation for households remains by car. This suggests that while dualization has improved safety and road conditions, it has not fully addressed the concerns of non-motorized transport users, who might still face risks due to road accidents. The minor emphasis on factors affecting non-motorized transport (foot, bicycle, tricycle) suggests that the dualization project may not have fully addressed the needs of these users. The most significant advantage perceived by households is infrastructural development (42.4%), highlighting that the improvements in road infrastructure are valued. Increased economic activities (40.9%) and employment opportunities (16.7%) are also recognized as



benefits. However, employment opportunities are perceived as the least significant advantage. The decision to dualize the roads was influenced by a combination of factors, with road accidents being the most critical. The overall improvement in infrastructure, safety, and traffic management

were key considerations. The dualization project reflects a response to major safety concerns and infrastructure needs, but there may be a need to address the needs of non-motorized transport users more effectively in future projects and effective policy implementation.

Table 5: Factors of Road Dualization

S/N	Factors of Road Dualization	Ratings					NR (f)	OSW	FRDI	\bar{X}	D = (X- \bar{X})	D ²
		5	4	3	2	1						
1.	Poor road condition (Presence of pothole)	390	292	162	188	85	384	1117	2.91	2.49	0.42	0.1764
2.	Traffic Congestion	320	140	201	236	100	384	997	2.6		0.11	0.0121
3.	Narrowness of road	65	472	177	220	84	384	1018	2.65		0.16	0.0256
4.	Poor Parking Facilities	280	172	120	134	178	384	884	2.3		-0.19	0.0361
5.	Poor Traffic Indicators	240	236	360	16	149	384	1001	2.61		0.12	0.0144
6.	Absence of pedestrian facilities	160	52	57	356	142	384	767	2.0		-0.49	0.2401
7.	Delay in Travel Time	200	270	33	226	166	384	895	2.33		-0.16	0.0256
8.	Road Accidents	240	612	144	128	71	384	1195	3.11		0.62	0.3844
9.	Encroaching on Right of Way	55	108	243	236	147	384	789	2.05		-0.44	0.1936
10.	On and Off Street Loading	135	84	90	258	177	384	744	1.94		-0.55	0.3025
11.	Crime and security risk of road users	270	284	273	188	74	384	1089	2.84		0.35	0.1225
	Total								27.34			1.5333

Source: Authors' Field Survey, 2024

Note: OSW = Overall Sum of Weighted Value NR (f) = Number of Respondents (frequency)
FRDI = Factors of Road Dualization Index



Table 6: Households' Perception on Advantages of Road Dualization

Locality	Advantages of Road Dualization							
	Employment Opportunities		Increase in Economic Activities		Infrastructural Development		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Ikeja	26	14.8	74	42.0	76	43.2	176	100
Ojodu	32	23.5	51	37.5	53	40.0	136	100
Opebi	6	8.3	32	44.4	34	47.2	72	100
Total	64	16.7	157	40.9	163	42.4	384	100

Source: Field Survey, 2024

Households' Perception on Impact of Road Dualization

Result on Table 7 revealed households' perception on Impact of Road Dualization in the study area. The Impact of Road Dualization Index (IRDI) values were categorized into two: the IRDI value with positive deviation above the mean IRDI value (3.43) have major impact on households' mobility than those with IRDI value below the average. Results of the findings revealed that Displacements of Households is the major impact of road dualization with IRDI value of 4.28 and 0.86 deviation above the mean. Next in rank were: reduced flora and fauna diversity (3.79); increased transport infrastructure and employment opportunity (3.71); traffic congestion (3.64); and loss of arable land (3.60). Those with minor impact on households' mobility are: lack of proper waste management (2.68); increase noise level from construction sites and vehicles (3.02); air pollution (3.15); soil deterioration (3.18); parking problem (3.22); and travel delay (3.34). Hence, these variables have no major impact on households' mobility in the study area. From the foregoing, it can be inferred from findings that displacement of households has major impacts

of road dualization and it indeed has a serious deleterious implication on households' mobility in the study area. The analysis proves that there is a significant variation in the impact of road dualization on households' mobility among the three locations in the study area. This impact varies from place to place. This is because the P value for the various impacts of road dualization on households is less than or equal to the alpha level (confidence level) 0.05. Therefore, the null hypothesis is hereby rejected and the alternative hypothesis is accepted at (P value < 0.05). It is therefore upheld that there is significant impact of road dualization on households' mobility in the study area.

The highest IRDI value (4.28) with a positive deviation above the mean indicates that displacements of households are perceived as the most significant impact of road dualization. This suggests that the process of road dualization has had a considerable effect on households, likely requiring them to move from their original residences due to construction activities or road widening. Reduced flora and fauna diversity is another major impact. This implies that the road dualization has negatively affected local ecosystems, possibly due to land clearing and



habitat destruction. increased transport infrastructure and employment opportunities with IRDI values of 3.71, indicate significant positive impacts. Increased infrastructure and job opportunities are seen as beneficial outcomes of the road dualization, contributing to overall improvements in the area. Although somewhat reduced, traffic congestion remains a notable impact. This may suggest that while road dualization aims to alleviate congestion, it can temporarily exacerbate it during construction. The loss of arable land is also a significant impact, reflecting concerns about the reduction of agricultural space due to road expansion.

Environmental and operational concerns with variables such as lack of proper waste management, increased noise levels, air pollution, soil deterioration, parking problems, and travel delays were perceived to have minor impacts on households' mobility. These issues, while present, are not seen as major disruptions compared to the primary impacts like displacement and environmental changes. The study shows significant variation in the impact of road dualization on households' mobility among

different locations in the study area. This variation is statistically significant. This suggests that the effects of road dualization differ depending on the location, likely due to varying local conditions and contexts. The rejection of the null hypothesis and acceptance of the alternative hypothesis (P value < 0.05) confirms that road dualization has a significant impact on households' mobility. This statistical finding supports the conclusion that the road dualization process has notable effects, both positive and negative, on the community. The negative impacts of road dualization in Ikeja and a primary concern for households is the displacement caused by road dualization, which has significant implications for households' mobility and stability. While road dualization brings benefits like improved infrastructure and increased employment opportunities, it also results in challenges such as environmental degradation and loss of land. Addressing these impacts requires careful planning and mitigation strategies to balance development benefits with the needs of affected communities.

Table 7: Households' Perception on Impact of Road Dualization

S/N	Impacts of Road Dualization	Ratings					NR (f)	OSW	IRDI	\bar{X}	D = (X- \bar{X})	D ²
		5	4	3	2	1						
1.	Loss of Arable Land	370	816	81	76	41	384	1384	3.6	3.42	0.18	0.0324
2.	Air Pollution from Construction Sites and Vehicles	230	396	354	220	11	384	1211	3.15		-0.27	0.0729
3.	Increase Noise Level from Construction Sites and Vehicles	355	472	57	198	77	384	1159	3.02		-0.4	0.1600
4.	Soil deterioration from motor vehicle lead emission, erosion from desurfacing etc	455	284	297	124	61	384	1221	3.18		-0.24	0.0576
5.	Parking Problem	335	536	153	162	51	384	1237	3.22		-0.2	0.0400



6.	Reduced floral & faunal diversity from bush clearing and excavation	590	600	162	86	19	384	1457	3.79		0.37	0.1369
7.	Travel Delay	455	364	273	164	26	384	1282	3.34		-0.08	0.0064
8.	Lack of Proper Waste Management	270	268	222	162	108	384	1030	2.68		-0.74	0.5476
9.	Traffic Congestion during construction	335	708	273	44	38	384	1398	3.64		0.22	0.0484
10.	Displacement of Households	630	790	162	32	30	384	1644	4.28		0.86	0.7396
11.	Increased transport infrastructure and employment opportunity	280	912	177	26	28	384	1423	3.71		0.29	0.0841
	Total								37.61			1.9259

Source: Field Survey, 2024

Note: OSW = Overall Sum of Weighted Value NR (f) = Number of Respondents (frequency) IRDI = Impact of Road Dualization Index

Table 8: ANOVA Table on the Impact of Road Dualization on Households' Mobility

		Sum of squares	Df	Mean square	F	Sig.	Remarks
Loss of Arable Land	Between Groups	19.209	2	9.605	7.128	0.001	Significant
	Within Groups	188.637	140	1.347			
	Total	207.846	142				
Air Pollution from Construction Sites and Vehicles	Between Groups	12.643	2	6.322	6.063	0.003	Significant
	Within Groups	145.972	140	1.043			
	Total	158.615	142				
Increase Noise Level from Construction Sites and Vehicles	Between Groups	46.259	2	23.130	12.712	0.000	Significant
	Within Groups	254.734	140	1.820			
	Total	300.993	142				
Soil deterioration from motor vehicle lead emission, erosion from desurfacing etc	Between Groups	37.287	2	18.643	11.090	0.000	Significant
	Within Groups	235.343	140	1.681			
	Total	272.629	142				
Parking Problems	Between Groups	12.433	2	6.217	3.681	0.028	Significant
	Within Groups	236.406	140	1.689			
	Total	248.839	142				
Reduced floral & faunal diversity from bush clearing	Between Groups	21.428	2	10.714	9.163	0.000	Significant
	Within Groups	163.691	140	1.169			



and excavation	Total	185.119	142				
Travel Delay	Between Groups	40.301	2	20.150	11.921	0.000	Significant
	Within Groups	236.636	140	1.690			
	Total	276.937	142				
Lack of Proper Waste Management	Between Groups	96.943	2	48.472	38.933	0.000	Significant
	Within Groups	174.301	140	1.245			
	Total	271.245	142				
Traffic Congestion during construction	Between Groups	48.842	2	24.421	26.522	0.000	Significant
	Within Groups	128.907	140	.921			
	Total	177.748	142				
Displacement of Households	Between Groups	15.727	2	7.863	6.400	0.002	Significant
	Within Groups	172.008	140	1.229			
	Total	187.734	142				
Increased transport infrastructure and employment opportunity	Between Groups	40.413	2	20.207	28.056	0.000	Significant
	Within Groups	100.831	140	0.720			
	Total	141.245	142				

Source: Field Survey, 2024

4. CONCLUSION

This study examined the impacts of road dualization on households' mobility in Ikeja. Although, there is a positive impact of road dualization which includes employment opportunities, increase in economic activities, and infrastructural development which has aid in the reduction of travel time and cost in the study area. This will no doubt invariably add to the stock of good roads in Nigeria, contribute to the goal of improving the efficiency and capacity of the transport system to support economic growth and social development. The negativities of road dualization which also has a substantial devastating impact on households' mobility should not be disregarded as it is of keen interest to this research. However, it is imperative that the institutions of good urban governance create the will to implement the recommendations given in this study.

5. REFERENCES

- Akinbami J. and Ayobami O. (2009): Strategies for Sustainable Urban Transport Development in Nigeria. Great Britain Journal of Transport Policy, Vol. 4 No. 4, pp. 237 – 248, Elsevier Sciences Ltd.
- Carey J. (2001): Impact of highways on property values: Case study of the superstition freeway corridor. (A.D. o. Transportation, ed.), Arizona, USA.
- Filani O. (1976): Transport and Communication; A contemporary African – Geography and Change by Knight and Newman (eds). Prentice Hall, Inc. Englewood Cliffs, New Jersey. Pp. 342 – 355.
- Krejcie, R.V., & Morgan, D.W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30, 607-610.
- NPC (2007): Final Results of the 2006 National Population Census in Nigeria. Downloaded from www.population.gov.ng.
- Oni S. I., (2001). Towards a Sustainable and Integrated Traffic Systems Management Policies for African Cities in the New



Millennium. Department of geography, University of Lagos, Lagos, Nigeria. The Netherlands International Secretariat, Nassau Dillenbursgtraat, The Hague, The Netherlands.

Soneye A. (2004): Institutional Dilemma of Urban Waste Management in Developing Nations: the Lagos State Experience” in Industrialization, Urbanization and Development. Nigeria.

The National Academy of Science Press (2002). Key Transportation Indicators: Summary of a Workshop, Transportation Indicators of Economic

Growth: Relationship between Transportation and Economy. Available from: <http://www.nap.edu/read/10404/chapter/5>.

The Research Advisors (2006). Sample Size Calculator

<http://research-advisors.com/tools/SampleSize.htm>.

World Bank (2003) Infrastructure and Environment, World Bank Research Development Group, March. Washington DC: World Bank

Yusuf, U. M. (2014). Transportation and Trade in Pre-colonial Kano. A paper presented to the International association for the history of transport, traffic and mobility.

