An Appraisal of the Relationship between Road Improvements and Immediate Neighbourhood Residential Properties Values in Metropolitan Lagos

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Abstract

This study is aimed at analysing the relationship between road improvement and neighborhood properties values in selected parts of Lagos. The purpose is to determine the contribution of roads improvement to neighborhood properties rental/capital values. Structured questionnaires were administered on some purposely selected 200 landlords and tenants living in residential buildings in the neighborhood of the roads under study and out of the selected 200 landlords and tenants, 153 respondents duly completed and returned their questionnaires, all of which were found useful for the study. The data collected were analyzed using descriptive and analytical statistics. The study reveals that there existed one form of road improvements or another in the study areas in the past five years. Road improvements were identified as a factor contributing to increase in rental/capital values. Accessibility was recognised as a factor that determines what people want to pay for a particular location. Majority of the respondents were found to be ready to pay higher rent as a result of road improvements. The study also shows that there was a significant relationship between road improvements and neighborhood properties values in the study areas. The study recommends that the three tiers of governments should take the the issues of construction, maintenance and rehabilitation of roads as a matter of priority because these processes enhance property values and indirectly increase revenue accruable from property as tax to government coffers.

1. Introduction

Oni (2007), citing Goldberg (1970), opines that property and land values tend to increase in areas with expanding transportation networks, and increase less rapidly in areas without such improvements. Rapid and continued rise in housing and land prices are expected in cities with transportation improvements and rapid economic and population growth. Road is any nation greatest investment where every citizen is a shareholder (Readop Series II 2007). However, the burden of road construction, road caring or management is seen as the sole responsibility of the government

Knaap (1998), observes that property's location and value are strongly interrelated. Urban transport systems influence property features. Accessibility is a key aspect of location.

Physical accessibility is determined by the time and cost of travel to other locations. It depends on the presence, efficiency and effectiveness of transport modes. Investment in new transport infrastructure will alter location's relative accessibility, inducing both localised and more general changes in land values.

Substantial value changes will trigger property investment and development decisions, resulting in the intensification or change in land use. Therefore, property market acts as the conduit through which the economic and social impact of changes in accessibility is transmitted to the environment.

Aderamo (2003), opines that road network constitutes an important element in urban development as roads provide accessibility to the different land uses in the urban area. Thus, the proper functioning of an urban area depends on an efficient transportation network. General accessibility largely depends on transport facilities. Oni (2007), citing Said and Shah (2006), listed transportation modes to include human porterage, railways, ropeways and cableways, pipelines, inland waterways, sea, air and road.

Areola , Mamman , Onweluzo and Omotosho (1999), cited in Ladan (2007), describe road transportation as a form of land transport which involves the movement of people and goods by motor cars, trucks, buses, motorcycles and bicycles. Furthermore, they refer to road transportation as the most popular means of transport.
Ileoje (2004), also cited in Ladan (2007), categorises roads based on their quality. The quality is determined by the width, type of surface, number of lanes, facilities available etc. The road categories include the high quality Trunk 'A' roads, some dual carriage, owned and maintained by the Federal Government and linking the states and the federal capital. There are also, all season, generally tarred Trunk 'B' roads owned and maintained by the state government, linking local governments with state capitals. There are generally untarred seasonal Trunk 'C' roads owned and maintained by local governments. These roads connect the communities with the local government headquarters.

Oni (2007), categorises roads as international, inter city and intra city. Tse and Love (2000), observe that while transportion systems clearly enhance neighborhood accessibility, they negatively affect estate values. This is manifested in the production of noise, pollution, crime, and, in the case of properties located directly in their path via stigma. These factors, both positive and negative, capitalised into the values of homes in the same way that extra bathrooms, swimming pools and/or desirable locations do.

Road is any country greatest investment where every citizen is a shareholder according to Sims (2002). However, the burden of road construction, road caring or management is regarded as government responsibility. Road transport is many nations or cities driver of the economy and is the most popular means of transport in Lagos.
Lagos being the commercial nerve centre of the country continues to witness on a daily basis the influx of people from different parts of the country to seek for means of livelihood. As a result of the influx, the rate at which infrastructure is being provided cannot meet the demand. The situation is even worsen in cities according to Adewole et al (2007) as a result of the failure of government land policy which manifests in the predominance of informal and illegal mechanisms of land transactions and housing production as cited from (Mc Auslan,1994; Fernades, 2001).

Informal and illegal developments according to (UNCIS, 1996 and 2000; Durand-Lasserve, 1997) cited by Atubi and Onokala (2007) provides shelter for over 85% of the population. The owners of these illegal developments are desperate to have shelter over their heads with little concern for the provision of adequate infrastructure including good roads.

The rate at which these settlements spring up must be of serious concern to any caring government. This is because it is government responsibility to provide infrastructure for the citizenry.

Problems of accessibility is not limited to sprawl settlements, in areas that are well planned and where developments are legal, house owners erect expensive mansions all over without given adequate consideration to the issues of good roads. They look on governments to provide them with roads. Inability on their part to give the issue of good roads topmost priority is as a result of their ignorance on what effect roads improvements have on property values. In addition, small repair works that need to be carried out immediately on some roads by authorities in charge are neglected until the road degenerate. The problems in some instances are self inflicted as in the case of those who dug across the road to lay water pipes without putting the road back in the state it was met.

One point must be hammered on, governments at different tiers or levels cannot do it all because of the amount of capital involved. There must be collaboration on the parts of other stakeholders to bring about much needed improvements or upgrading to our roads. This is already being carried out in Lagos state through the Public Private Parnership. Oyin Jolayemi Street in Victoria Island was rehabilitated through the efforts of consortium of banks operating in that area. The same thing goes for Ajose Adeogun that was solely rehabilitated by Zenith Bank Plc. The Lagos State Government in 2007 entered into a concession agreement with Lagos Concession Company (LCC) for the widening and tolling of the Victoria Island- Epe express road whose aim is to improve traffic congestion along that route. The concession period was estimated to be thirty years to enable the company recover their cost and make profit on their investment in the project through toll collection. The company has arranged for a loan and the project is at an advanced stage using projected income from toll road as collateral security. Three years after the commencement of the project when the concession company wants to start collection of toll on the road stakeholders in the road project are protesting over the move. They opine that their views were not sought to know whether they desire a toll road with financial implication on their purse. They argued that their consent must have first been sought to establish their willingness to pay toll. They argued that the cost of constructing the road estimated to be at a rate of #1 billion (One Billion Naira) per kilometer is on the high side and further question the rationale for the erection of three toll points on the road. Apart from this, there is an instance as pointed out by Otegbulu (2010) citing Okoye (2005) where residents of Oshodi Local Government Area often contribute money to provide infrastructure of which road is one of them. Oni (2007) identifies factors that affect property values as intrinsic or extrinsic. Adebayo (2006) opines that property values tend to peak in areas that enjoy easy accessibility (through road network), electricity, pipe-borne water among others. Gerrit (1998) is of the view that the impact of an improved road network on property value depends on demographic segmentation of the neighbourhood. It is against this background this study is set out to ascertain the impact the quality of road networks play in determining the value of residential property values in some selected areas of Lagos metropolis.

2. Methodology

To achieve the aim of the study, primary data were collected through questionnaires distributed among the residents comprising of both landlords and tenants living within the selected study areas. The selected tenants and landlords were drawn based on stratified method of sampling used in selecting residential buildings where the respondents reside. Towards this end, a total number of 153 respondents were selected using purposeful sampling technique and given questionnaires to fill. The data so collated were analysed using simple descriptive and analytical statistics.

3. Data Analysis and Discussion

The data collected with the aid of questionnaires administered on the selected respondents were analyzed and presented in the tables 1 to….. The gathered data are organized and quantitatively summarized in such a way that it enables one to confirm or reject whatever pre-conceived ideas one may have about the relationship between road improvements and neighbourhood property values. In achieving this purpose bar chart and tables were used to present major issues on the relationship between road improvements and neighborhood properties values in the selected part of Lagos. This section is therefore devoted to the analysis, presentation and interpretation of the data collected from the selected respondents.

Table 1: How Long Have You Been Staying in Ikeja and Victoria Island?

	Ikeja		Victoria Island	
	Frequency	Percentage	Frequency	Percentage
1-5yrs	22	24.4	15	23.8
6-10yrs	46	51.1	36	57.1
11-15yrs	16	17.8	8	12.7
16-20yrs	6	6.7	4	6.3
Total	90	100	63	100

Table 1 above shows the frequency distribution of the respondents by years of staying in the study areas. In the case of Ikeja, forty-six (51.1%) of the respondents have been staying in the area for 6-10years, twenty-two (24.4%) have been staying in the area for 1-5years, sixteen (17.8%) of the respondents have been staying in the area for 11-15years while six (6.7%) of the respondents have been staying in the area for 16-20years.

For Victoria Island, thirty-six (57.1%) of the respondents have been staying in the area for 6-10years, fifteen (23.8%) have been staying in the area for 1-5years, eight (12.7%) of the respondents have been staying for 11-15years and four (6.3%) have been staying in the area for 16-20years. From this, it can be seen that majority of the respondents have been staying in Ikeja and Victoria Island for between 6-20years.

Figure1: What Was the State of the Road When You Moved in?

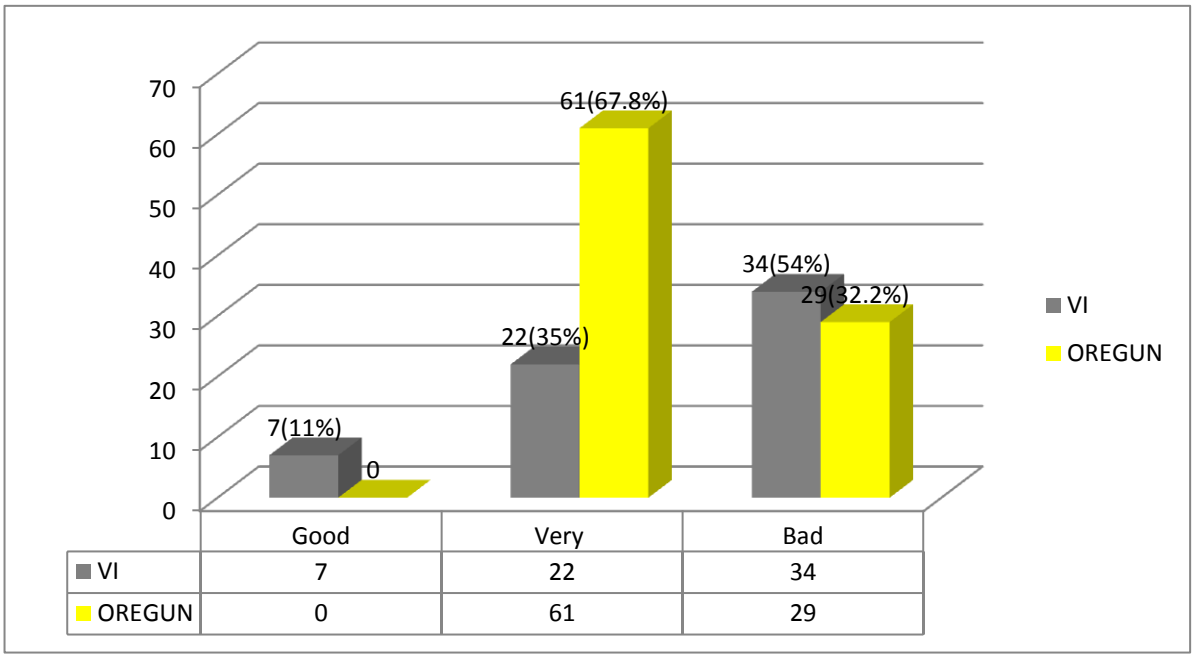

Figure1 shows the frequency distribution of the respondents describing the state of the road. About fifty-four (54.2%) of the respondents in Victoria Island of Lagos agreed that the state of the road when they first moved in was very bad while about sixty-three (41.2%) of the respondents agreed that the state of the road when they first moved in was bad state while only seven respondents which represents 4.6% were of the opinion that the state of the road when they first moved in was very good. In the case of respondents in Ikeja, a whopping 67.8% of the respondents were of the view that the road was in very bad state when they initially moved to the area while another 32.2% confirmed that the road bad when they packed into the area. From this, it can be seen that majority of the respondents agreed that the state of the road when they first moved in was very bad **.**

Table 2: Has There Been any Road Improvements in the Areas in the Past 5 Years?

	Ikeja		Victoria Island	
	Frequency	Percentage	Frequency	Percentage
Yes	85	94.4	61	96.8
No response	5	5.6	2	3.2
Total	90	100	63	100

Table 2 shows that eighty-five (94.4%) of the respondents agreed that, there has been road improvements in Ikeja and five (5.6%) did not respond while sixty-one (96.8%) of the respondents agreed that, there has been road improvements in Victoria Island while two (3.2%) did not respond.

Table 3: Types of Roads Available in Ikeja and Victoria Island?

	Ikeja		Victoria Island	
	Frequency	Percentage	Frequency	Percentage
Tarred	84	93.3	55	87.3
Interlocking	0	0.0	7	11.1
No response	6	6.7	1	1.6
Total	90	100	63	100

Table 3 shows the frequency distribution of the respondents by type of roads available in the study areas. Eighty-four (93.3%) of the respondents tick availability of tarred road in Ikeja while six (6.7%) did not respond and fifty-five (87.3%) of the respondents tick availability of tarred road in Victoria Island, seven (11.1%) of the respondents tick availability of interlocking roads in the area while one (1.6%) of the respondents did not respond. From this, it can be seen that majority of the respondents agreed that, there is availability of tarred and interlocking roads in Ikeja and Victoria Island.

Table 4: Types of Road Improvements That Has Taken Place in the Last 5 Years

	Ikeja		Victoria Island	
	Frequency	Percentage	Frequency	Percentage
Road construction	60	66.7	38	60.3
Reconstruction of road	4	4.4	3	4.8
Filling of pot holes	9	10.0	5	7.9
Grading of road	8	8.9	5	7.9
Provision of street light	6	6.7	8	12.7
Provision of covered drainage	3	3.3	4	6.3
Total	90	100	63	100

For Ikeja sixty (66.7%) picked road construction, nine (10.0%) chose filling of pot holes, four (4.4%) goes for reconstruction of road, eight (8.9%) of the respondents agreed that grading of road was done and also three (3.3%) of the respondents agreed that provision of covered drains has taken place in the last five years in Ikeja. As for Victoria Island, thirty-eight (60.3%) of the respondents agreed that total road construction has taken place in the last five years, five (7.9%) each of the respondents agreed that filling of pot holes and grading of road has taken place, eight (12.7%) agreed that provision of street light has taken place in the area, three (4.8%) agreed that it is the reconstruction of road and four (6.3%) agreed that provision of covered drainage has taken place in the last five years.

From this, it can be seen that majority of the respondents agreed that total road construction has taken place in Ikeja and Victoria Island for the last five years.

Table 5: Effect of the Road Improvements on Rental/Capital Values

	Ikeja		Victoria Island	
	Frequency	Percentage	Frequency	Percentage
Increase in rental value	81	90.0	58	92.1
No response	9	10.0	5	7.9
Total	90	100	63	100

Table 5 indicates that eighty-one (90%) of the respondents agreed that road improvements increase rental/capital values in Ikeja and nine (10.0%) did not respond while fifty-eight (92.1%) of the respondents agreed that road improvements increase the rental/capital values in Victoria Island and five (7.9%) did not respond.

Table 6: Ways in Which Road Improvements Contribute to Rental/Capital Values

	Ikeja		Victoria Island	
	Frequency	Percentage	Frequency	Percentage
Accessibility	10	11%	5	8%
Reduce Traffic	12	13%	7	11%
Free flow of water	13	14%	10	16%
Good Drainage	13	14%	11	17%
Road Widening	3	3%	7	11%
Provision of Street light	14	16%	9	14%
Provision of Pedestrian walkway	13	14%	8	13%
Provision of cover drainage	12	13%	6	10%
Total	90	100	63	100

Table 6 indicates the way in which respondents in the study areas explain how road improvements contributes to rental/capital values. For Victoria Island, ten (11%) explains it in term of accessibility, 12 (13%) explain it in terms of reduction of traffic, 13 (14%) each describe the contribution in terms of free flow of water, good drainage and provision of pedestrian walkway, 3 (3%) are of the opinion that its contribution is in terms of road widening, 14 (16%) express it in terms of provision of street light and 12 (13%) describe the contribution in form of covered drainage.

In the case of Ikeja, 5 (8%) agreed that the contribution is through facilitation of accessibility, 7 (11%) each describe the contribution in term of reducing traffic and road widening, 10 (16%) explains it in terms of free flow of water, 11 (17%) express it in term of good drainage, 9 (14%) agree that the contribution is in term of provision of street light, 8 (13%) say it in term of provision of pedestrian walkway and 6 (10%) describe it provision of cover drainage

Table 7: Willingness to Pay Higher Rent When Roads Are Improved

	Ikeja		Victoria Island	
	Frequency	Percentage	Frequency	Percentage
Yes	90	100	63	100
Total	90	100	63	100

Table 7 indicates that the entire respondents both in Ikeja and Victoria Island express their readiness to pay higher rent when roads are improved.

Table 8: Do Road Improvements Has Any Disadvantages?

	Ikeja		Victoria Island	
	Frequency	Percentage	Frequency	Percentage
Yes	82	91.1	57	90.5
No	3	3.3	4	6.3
No response	5	5.6	2	3.2
Total	90	100	63	100

Table 8 shows that eighty-two (91.1%) of the respondents agreed that road improvements do not have any disadvantages, three (3.3%) of the respondents agreed that road improvements have disadvantages while five (5.6%) did not respond in the case of Ikeja. For Victoria Island, fifty-seven (90.5%) of the respondents agreed that road improvements do not have disadvantages, four (6.3%) agreed that road improvements have disadvantages while two (3.2%) did not respond. From this, it can be deduced that majority of the respondents in Ikeja and Victoria Island agreed that road improvements do have disadvantages.

Table 9: Ticking of Factors Considered as Disadvantages

	Ikeja		Victoria Island	
	Frequency	Percentage	Frequency	Percentage
Overspeed from Motorist	35	38.9	25	39.7
Knocking down of pedestrian	44	48.9	26	41.3
Exposure to crime	9	10.0	12	19.0
Fear of being located near improved road	2	2.2	0	0.0
Total	90	100	63	100

Table 9 above shows that forty-four (48.9%) of the respondents from Ikeja agreed that one of the disadvantage of road improvements is knocking down of pedestrian, thirty-five (38.9%) picked overspeed from motorist, nine (10%) go for exposure to crime while two (2.2%) agreed that one of the disadvantage of road improvements is fear of being located near improved road. For Victoria Island, while twenty-six (41.3%) of the respondents chosed knocking down of pedestrian, twenty-five (39.7%) picked overspeed from motorist while twelve (19%) say it is exposure to crime.

Table 10: Do You Think Road should not be improved Because of Any of These Disadvantages?

	Ikeja		Victoria Island	
	Frequency	Percentage	Frequency	Percentage
No	90	100	63	100
Total	90	100	63	100

Figure 4.11 shows that all the respondents both from Ikeja and Victoria Island disagreed that the road should not be improved because of any of the disadvantages.

Table 11: What Amount are you willing to Pay If Street Lights, Covered Drainage, Pedestrian Walkways and Road Median are Provided?

	Victoria Island			**Ikeja**		
	N2m-N3m	N3m-N4m	N4m-N5m	N200k-N300k	N300k-600k	Over 600k
Street lights, covered drainage, pedestrian walkway and road median	8	15	40	15	65	10
covered drainage, pedestrian walk way and road median	11	30	22	40	35	15
pedestrian walkway and road median	25	30	8	60	20	10
road median	45	15	3	75	9	6

Table 11 shows the frequency distribution of the respondents by their willingness to pay for different types of road improvements. Forty of the respondents can afford to pay between N4m-N5m the highest range if street lights, covered drainage, pedestrian walkway and road median are provided in Victoria Island while sixty five can afford to pay between N300K-N600K if the same number of facilities are provided in Ikeja. Thirty of the respondents can afford to pay between N3m-N4m if covered drainage, pedestrian walkway and road median are provided in Victoria Island while forty can afford to pay between N200k-N300k if covered drainage, pedestrian walkway and road median are provided in Ikeja. Thirty of the respondents can afford to pay between N3m-N4m if pedestrian walkway and road median are provided in Victoria Island while sixty of the respondents can afford to pay between N200K-N300k if pedestrian walkway and road median are provided in Ikeja. Forty-five of the respondents can afford to pay between N2m-N3m if road median is provided in Victoria Island while seventy-five of the respondents can afford to pay between N200K-300K if road median is provided in Ikeja. This shows that as the number of road facilities provided decreases so is the amount respondents are willing to pay as rent decreases.

4. Discussion of Findings

The study reveals that there has been some road improvements in the study areas in the past five years and this was confirmed in the data analysis where eighty five (95.4%) respondents at Ikeja agreed that there has been road improvements while five (5.6%) did not respond and sixty one (96.8%) respondents at Victoria Island answered in the affirmative while two (3.2%) did not respond. The study also identifies the different types of road improvements in the study areas. For Ikeja, sixty respondents (61.7%) picked road construction, four (4.4%) picked reconstruction of road, nine (10.0%) approved of filling of pot holes, eight (8.9%) picked grading of road, six (6.7%) chosed provision of street light and three (3.3%) ticked provision of covered drainage. As for Victoria Island respondents, thirty eight (60.3%) picked road construction, three (4.8%) ticked reconstruction of road, five (7.9%) each picked filling of pot holes and grading of road, eight (12.7%) approved of street light provision while four (6.3%) decided on covered drainage. From this breakdown, it can be deduced that different types of road improvements had taken place in the study areas.

Road improvements is an important factor contributing to the enhancement of rental/capital values. The study indicates this when eighty one (90.0%) respondents from Ikeja agreed that road improvements increases rental/capital values while nine (10%) did not respond. As for Victoria Island, fifty eight (92.1%) respondents answered in the affirmative while five (7.9%) did not respond.

The deduction from this breakdown is that majority of the respondents living in the study areas agreed that road improvements do lead to an increase in rental/capital values. Accessibility is a major factor that determines how much people are willing to pay for a particular location. Balchin et al (1995) opine that a location that is easily accessible (with lower net economic cost of movements in terms of distance, time and convenience) has a greater comparative advantage and the greater is the demand for property at that location.

5. Recommendations and Conclusion

Since road improvements or accessibility play an important role in determining property values, it is high time that the Nigerian Institute of Estate Surveyors realise the need to catch up with advances and new opportunities especially in transportation. It is therefore important for Estate Surveyors and values to brace up and be counted so as to face the emerging global professional challenges and opportunities The three tiers of government (i.e.Federal, State and Local) should take the construction, maintenance and rehabilitation of roads as a matter of great importance. This is because landed property is an indicator of the wealth of a nation and their values can be enhanced through the provision of good roads. The amount of tax payable under the Land Use Charge Law of 2001 is dependent on the value of the property. As a result, the Lagos State Government should increase its funding of road improvements including construction, maintenance and rehabilitation of roads. Improving accessibility through road improvements would enhance the values of properties, and since the law specifies that the amount payable would be a percentage of the capital values of the properties, increase in value results in an increase in the amount of tax payable thus generating more revenue to the government coffer.

The contribution of road improvements to residential property values in Victoria Island and Ikeja were examined and specific objectives were achieved. The aim and objectives were achieved through the analysis of road improvements in the study areas. Relationship between the attributes and contribution of road improvements and other attributes to changes in rental and capital values of residential properties were examined. The study has emphasize on the the importance of accessibility, demand, supply, location and the impact that road improvements has on properties value generally. It is the hope of the researcher that the findings in this study will be useful to government at different levels in policy formulation and implementation of measures that will effectively facilitates accessibility through road improvements.

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