

*Original Research Article*

# The effects of urban infrastructural development on property value in Abeokuta Metropolis, Nigeria

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## Abstract

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The state of urban infrastructure is an important indicator of the status of any urban area. Apart from being a major pointer to environmental quality, urban infrastructure is a critical agent for socio-economic development of any area. This paper evaluates the contribution of urban infrastructural development to property values in Abeokuta with a view to provide platform for prospective investors on the opportunities available in the metropolis. The paper employed the use of structured questionnaires administered on 15 registered firms of Estate Surveyors and Valuers, 5 members of Real Estate Developers Association of Nigeria in the metropolis and 150 randomly selected organized commercial properties in the commercial areas of the metropolis. Frequency table and percentages were used in analyzing data collected. The paper reveals that the efforts of the present government in Ogun state has attracted many investors as a result of the deliberate efforts in promoting the infrastructure facilities in the state capital and other towns. It also reveals that property values have increased tremendously and the efforts have also brought about a new look of the state capital. The paper therefore recommended that these efforts should be sustained so that prospective investors will continue to showcase their investment opportunities in real estate sector of the economy.

**Keywords:** Business opportunity, Governance, Infrastructure, Market value, Real estate

## INTRODUCTION

One veritable parameter of assessment and indicator of status of any spatial, especially urban system is the state of infrastructure. The efficiency of any form of human activity system including an urban area largely depends on the provision of efficient infrastructural facilities and services (Babarinde 1998). Hence the significant of infrastructure in the proper functioning of an urban area cannot be dismissed.

Apart from being a major pointer of environmental quality, urban infrastructure is a critical agent for the socio-economic development of any urban area (Okusipe 1999). It places an important and indispensable role in the economic social and environmental aspect of life of an urban setting. It has a manifest impact on the quality of life. It is a back bone of any economy. Industry needs

it to effectively and efficiently drive their production process.

Urban infrastructure covers a wide range of facilities namely electricity, water, road, waste disposal, drainage, communication, primary health services, school housing, as the key ones, which are more often provided by government.

Where urban infrastructure is adequately provided and efficiently managed, productive uses through better rent offers this competition for location with good urban infrastructure usually results in an increase in land and housing values, either sales or rentals (Harvey 2000).

It is evident that a myriad of factors such as the prevailing economic conditions, government legislation and policies, availability and state of infrastructure,

provision come into play to influence local property values. In carrying out this study, all other factors were assumed constant while urban infrastructure was isolated and examined in relation to property values.

### **Aim and Objective**

This study therefore, highlights and evaluates the state of the urban infrastructure and its effect of property values in Abeokuta with a view to provide better information for the stakeholders. To achieve this, the following objectives shall be used:

- Identify the types and state of infrastructure available in the study area,
- Examine the problems associated with provision and maintenance of the facilities and consequential effect on property values in the area.
- Analyse the trends in property values in line with the infrastructure provided over a specified period of time in the study area.

### **Significance of the Study**

It is hoped that this study will assist the local planning authorities in mapping out proposal/development plans for infrastructure development in their different areas of jurisdiction in addition; it will render meaningful assistance in the development of strategies for estate layout that will promote urban environmental quality thereby enhancing property values in the areas.

### **Concept of Infrastructure**

Different definitions have been ascribed by authors to the word infrastructure. The term as been used in a broad sense to mean collectively, the transportation of people and information, the provision of public services and utilities such as water and power and the removal, minimization and control of waste and environmental restoration. Donald (1974) defines as the physical structure and facilities that are developed or acquired by public agencies to enhance governmental functions and provide water, power waste disposal transportation or similar services to facilitate the achievement of common social and economic objectives.

According to Fox (1994), infrastructures are those services derive from a set of public work traditionally provided by the public sector to enhance private sector production and to allow for household consumption. Nubi (2002) also described infrastructure as the aggregate of all facilities that allow a city function effectively. It is also been as a wide range of economic and social facility crucial to creating an enabling environment for economic growth and enhances quality of life which include

housing, electricity, pipe-borne water, drainage, roads sewage, health, education, telecommunication and institutional structures like police station, fire fighting station, banks and post office. It is simply the engine to drive the city. Irrespective of the forms of definition offered the common elements include physical structures. Facilities or utilities that are put in place by private public involvement and expenditure aimed at facilitating the effective functioning of the society.

### **Characteristics of Infrastructure**

The following features have been identified by Ominrin (2004) as the characteristic of infrastructure:

- It require large lump sum of investment, this perhaps justifies the reason why citizen usually look forward to their government for the provision of the facilities.
- It enjoys considerable economics of scale, which result in monopolies
- It has a high level of externalities both positive and negative.
- It has intermediate in- put characteristic.
- It possesses important network effect
- It poses difficulties in cost recovery.

While this characteristic have generally remained true, the exact character trait will depend on whether it is urban, rural, inter urban infrastructure or operator of the facilities i.e. whether public or private central, state or local government agencies.

### **Stakeholders in Urban Infrastructure**

Stakeholders, in the provision of urban infrastructure include government, private individuals, , community development association (CDA), community- based on organization (CBO's) and non-, governmental organization (NGO's). According to Mabaogunje, (2005) these are based on the involvement of four categories of stakeholder or actors in the provision of infrastructure service. They are.

1. The public sector whose principal should increasingly be to create competitive pressures for more infective and efficient services delivery to enable, facilitate, regulate and monitor such partnership.
2. The formal private sector which because of it access to financial and technological resources and it potentials gains to operate more efficiently can play a role in financing and providing certain infrastructure service and enhancing in their construction, operations and maintenance
3. The informal private sector which is actively involved in aspect of service delivery particularly in low income area which and potential, role in partnership to increasely be recognized.

4. The community and the representative who have direct interest as service users but who can also be, involve in awareness raising, advocacy making and in actual provision of service including, operation and maintenance and even, in construction of facilities

Public and private partnership therefore encourage government to move from direct production and delivery of services

### Urban Infrastructures in Nigeria

Like any, other nation in the world, Nigeria has her own stock of, urban infrastructure. Include in this stock were electricity, road, communication, drainage, waste disposal, educational facilities, health care facilities, recreational facilities, securities and fire service in the major urban centers (Nubi,2003). Constitutionally, some of the services fall within the statutory functions of one tiers of government or another. For instance, in 1999 constitution assigned to city councils, the responsibilities for the construction and maintenance of some categories of road namely trunk "C", installation of street light and the provision of refuse disposal services. However the state government sometimes steps in to complement the Local Government councils particularly in the area s of waste management.

Some of the prominent public agencies responsible for the provision and management of the facilities are

1. Power Holding Company of Nigeria Plc in charge of electricity generation, distribution and supply to consumers (Now Energy Distribution Company).
2. Nigeria Telecommunications Limited (NITEL)
3. State Water Corporations
4. Nigeria postal Services Limited (NIPOST)
5. State Waste Management Boards
6. State Health Management Board.

### Property Value / Determinants

Real property has no value if it has no utility and not effectively demanded. Real property has significance only if it satisfies man's needs and desires. It is man's collective desire for real property that gives rise to value (kuye, 2000). Thus, the ability of a property object to satisfy man's needs and desires together with its degree of scarcity and utility compared with others makes man to ascribe value to it. Property value, therefore, according to Olajide and Bello, (2012) is the money obtainable from a person (s) willing and able to purchase property when it is offered for sale by a willing seller, allowing for reasonable time for negotiation and with the full knowledge of the nature and uses which the property is capable of being put.

There are factors that determine value of individual

properties and those that effect properly value collectively. Individual property value determinants as identified by Britton et al (1989) are location, state of repair, accommodation details, services, property interest and time. The factors that dictate the prevailing level of collective property values in a neighborhood at a particular point in time range from physical to topography, configuration and features of the surroundings, socio-political factors, infrastructural facilities and services, government present, class or status of occupation economic to legal factors. They all often affect the value of properties collectively rather in isolation, either to cause 'appreciation' or depreciation in property values. Several factors can cause properly values to appreciate among which are infrastructural developments and positive changes in nearby properties. (These relate to physical planning legislations and policies). On the other hand, depreciation may occur in property values due to infrastructural degradation and negative changes in neighborhood properties.

### Urban Infrastructural and Property Values

It has identified that one of the determinants of property values is infrastructural facilities, the presence of which leads to appreciation in property value. Its absence affects neighborhood properties adversely (Briton at al, 1989). According to Hummer et al (2000) provision of good and adequate infrastructure is central to property values. A residential user may be prepared to pay a high value for a property depending on his consideration for basic facilities such as accessibility. Water and electricity (Harvey, 2000). Litchfield (1974) also observed that areas with basic facilities such as roads, good drainage, electricity, public water supply and telephone would attract high property values. This is in contrary to areas without any of these facilities. Thus there is a direct relationship between urban infrastructure and property values.

Accessibility which is a direct consequence of a good road network, in turn leads to high rental values of locations with greatest accessibility advantages. In a situation where properties are accessible via motorable road network, such properties will enjoy high rental values conferred by virtue of accessibility, (Olayonwa, 2000).

Provision of wholesome and portable water is a sine-que-non-to every household. Keeble (1969) recognized this when he said water is indispensable to the household as it is necessary for drinking, cooking, bathing and doing other numerous domestic activities. Hence, properties in areas that are well serviced with pipe-borne water no doubt enjoy higher rental values compared to areas where the service is non-existence. Other important determinants of property values are provision of network, electricity and drainage.

**Table 1.** Maintenance Culture

<b>Level of Maintenance</b>	<b>Freq of Respondent</b>	<b>% of freq</b>
Excellent	15	8.82
Adequate	25	14.71
Not Adequate	30	17.65
Poor Maintenance	80	47.06
No Maintenance	20	11.18
<b>Total</b>	<b>170</b>	<b>100.00</b>

**Source:** Field Survey, 2014

**Table 2.** Impact of Infrastructure on Property Value

<b>Level of Impact</b>	<b>Respondent</b>	<b>% of Respondent</b>
Very High Impact	78	45.88
Significant Impact	55	32.35
Low Impact	32	18.82
No Impact	5	2.94
	<b>170</b>	<b>100.00</b>

**Source:** Field Survey, 2014

## RESEARCH METHODOLOGY

The information for this paper were gathered from two principal sources viz primary and secondary sources. The primary sources include the administration of a well structured questionnaires and Oral interview of one hundred and seventy respondents. These include: fifteen (15) registered estate surveyors and valuers, five (5) members of Real Estate Developers Association of Nigeria in the city and One hundred and fifty randomly selected organized commercial properties in the commercial areas of the city.

The data collected were presented using simple statistical mode of analysis and recommendations were drawn from the problems identified thereafter.

## FINDINGS

### Infrastructure Provided

The basic infrastructure in the metropolis include electricity, road network, drainage/sewage, health care, education, telecommunication, pipe borne water, market/shopping centre, security and recreation centers. Facilities such as electricity, road network, health care education (public school) are provided by the three tiers of government (local, state and federal). Whereas, security services, potable water and telecommunication are collaborated effort of both the government and private operations of MTN, Vmobile and Globalcom have been the major providers of telecommunication services. The provision of minicomputer village at Ibara round about and spring up of commercial properties along Lalubu road are notable market places provided by the

government.

Table 1 above shows that most of the respondents (47.06%) were of the opinion that the facilities were poorly maintained considering their level of existence and performance while only 14.71% of the respondents agreed that the facilities were adequately maintained. This implied that despite the fact that there were provisions of the facilities in the area, they were poorly maintained and people in the area were suffering from the negligence of the officers concerned.

Table 2 shows the respondent's Opinion on the impact of infrastructure provision on the value passing on the properties they occupy show that is, 45.88%. Confirm the assertion. This means that infrastructure provision has major role to play in commercial activities of any city.

Table 3 reveals that between the year 2010 to 2012, the rent passing on residential properties in the metropolis was relatively stable. About this period, the area generally witnessed some minor infrastructural development and rehabilitation schemes by voluntary organization in conjunction with community development associations. Such improvement and rehabilitation schemes included the construction of drainage, boreholes, wells, electrification projects and installation of electric transformers. Looking closely at the table, the rental values in the area between period of 2013 and 2014 increased tremendously. This phenomenon can be attributed to the provision of more infrastructures in the area by the government and the private sectors. Firstly, the impact of the GSM services in the city and communicated easily with outside world. Those already in occupation were not ready leave. This situation culminated in higher rental values of the properties within the community. Moreover, the policies of government in the mass provision of roads, drainages, electricity,

**Table 3.** Trends in Rental Values of Properties in Abeokuta Metropolis (₦ PA)

Area	2010	2011	2012	2013	2014
<b>Ibara housing Estate</b>					
3 Bedroom Flat	₦ 1.0m	₦ 1.0m	₦ 1.0m	₦ 1.5m	₦ 3m
4 Bedroom Flat	₦ 2.5m	₦ 3m	₦ 3.2m	₦ 3.8	₦ 4m
Detached House	₦ 2.8m	₦ 3m	₦ 3.5m	₦ 4m	₦ 5m
<b>Onikoko/Lipede Estate</b>					
2 Bedroom Flat	₦ 900k	₦ 1m	₦ 1.2m	₦ 1.5m	₦ 2m
3 Bedroom Flat	₦ 1.1m	₦ 1.3m	₦ 1.5m	₦ 2.5m	₦ 2.8m
3 B/R Semi Detached	₦ 2m	₦ 2.2m	₦ 2.5m	₦ 2.8m	₦ 3m
4 B/R Semi Detached	₦ 2m	₦ 2.5m	₦ 2.8m	₦ 3m	₦ 3m
<b>Ita Eko/Quarry Road</b>					
3 Bedroom Flat	₦ 650k	₦ 700k	₦ 750k	₦ 1m	₦ 1.5m
3 B/R Semi Detached	₦ 750k	₦ 800k	₦ 1.2m	₦ 1.5m	₦ 1.8m
4 B/R Semi Detached	₦ 1.8m	₦ 2m	₦ 2m	₦ 2.5m	₦ 2.8m
4 Bedroom Duplex	₦ 2m	₦ 2.3m	₦ 2.5m	₦ 3m	₦ 3.5m
Detached House	₦ 2.5m	₦ 2.8m	₦ 3m	₦ 3.8m	₦ 4.5m
<b>Asero Housing estate</b>					
3 B/R Semi Detached	₦ 650k	₦ 750k	₦ 750k	₦ 1m	₦ 1.5m
4 B/R Semi Detached	₦ 700k	₦ 800k	₦ 850k	₦ 1.1m	₦ 1.8m
4 Bedroom Flat	₦ 800k	₦ 850k	₦ 1m	₦ 1.5m	₦ 2m
5 Bedroom Flat	₦ 900k	₦ 1m	₦ 1.2m	₦ 1.8m	₦ 2.5m
<b>Laderin Estate</b>					
2 Bedroom Flat	₦ 500k	₦ 650k	₦ 650k	₦ 700K	₦ 750k
3 Bedroom Flat	₦ 700k	₦ 700k	₦ 800k	₦ 850k	₦ 1m
3 B/R Semi Detached	₦ 900k	₦ 1m	₦ 1m	₦ 1.2m	₦ 1.5m
4 B/R Semi Detached	₦ 1m	₦ 1.2m	₦ 1.5m	₦ 1.8m	₦ 2m

Source: Field survey, 2014

establishment of commercial branches and other infrastructure boost commercial activities in the area thereby increased the property values.

### Relationship between Urban Infrastructure and Property Values

Further analysis of the data on Table 3 shows that rental values in the city reach the highest peak in Ibara housing and Onikoko/Lipede housing estate in the year 2014 for example; a 3 bedroom flat in Ibara in 2014 was ₦ 3m while that of Onikoko was ₦2m and Laderin was ₦ 1.5m . It will be noted that these three areas are government layouts with full complement of infrastructure. On the other hand, areas like Quarry road, Ita- Eko, are characterized by New – fashioned infrastructure in the form of Good road network, Good drainage and but epileptic electricity supply command lower rental values.

### CONCLUSION

From the analysis of findings empirical observation. It is obvious that the pressure of essential infrastructure facilities and services serve as major determinants of property values. Property values tend to peak in those areas that enjoy easy accessibility (through road

network), electricity, pipe-borne water, and efficient drainage system. The impressive rise in property Values in Ibara housing Estate, Laderin Estate and Onikoko/Lipede estate is largely attributed to the provision of these facilities. In contract, the low rate of rental values in Asero estate, Quarry road, Onikolobo etc can be adduced to the poor state of the infrastructural facilities especially electricity and water supply.

### Recommendation

In view of the foregoing, the following recommendations are hereby put forward:

Government should continue to embark on comprehensive road rehabilitation by tarring all the roads in the areas of the city suffering from poor road network, poor electricity, water supply and drainage system. It has now been realized that state government cannot provide all the necessary facilities, hence private individual and federal government should come to the aid of the state government for the provision of the essential infrastructure such as roads, water and electricity supply.

### REFERENCE

Babarinde JA (1998). Analysis of Industrial Relocation in Relation to Housing and Infrastructural Services in Metropolitan Lagos. The Lagos Journal of Environmental Studies. Vol. 2 No.1.

## 040 Merit Res. J. Art Soc. Sci. Humanit.

- Babawale GK (2004). Sustainable Urban Infrastructure Delivery in Nigeria. The Role of private Sector and Community Based Organization (CBOS) paper presented at the 34 Annual Conferences of NIEUS.
- Britton W, Davies K, Johnson T (1989). Modern Method of Valuation, 9<sup>th</sup> edition, London, the Estate Gazette Ltd.
- Donald CS (1974). Professional Education in Public Works/ Environmental Engineering Administration 5<sup>th</sup> Edition, Wadic Ltd, Chicago.
- Emoh F (2004). Real Estate Property Investment and Management. Abia, Christen International Company Ltd Paper Presented at the 34<sup>th</sup> Annual Conference of NIEUS.
- Fox WF (1994). Strategic Options for Urban Infrastructure Management; Urban Management Programme (UMP) Pp. 17.
- Harvey J (2000). Urban land economics 5<sup>th</sup> edition, London: Jack Harvey, Publishers.
- Keeble L (1969). Principles and Practice of Town Planning. Estate Gazette Limited, London.
- Kuye O (2000). Property Valuation Principles and Practice in Nigeria, Lagos: The Estate Management Institute study Pack.
- Litchfield N (1974). Economic of planning development. London Estate Limited.
- Mabogunje AL (2005). Real estate and National Development: Challenges for the Profession of Estate Surveyors and Valuers. Being text of the inaugural lecture delivered at the Launching of the Research Foundation of the Nigerian Institution of Estate Surveyors and Valuers on Thursday, November, 29 at the Sheraton Hotel & Towers, Wuse, Abuja.
- Millington AF (1981). An Introduction to Property Valuation. London, the Estate Gazette Ltd.
- Nubi TO (2002). Procuring, Managing and Financing Urban Infrastructure. Towards Integrated Approach, Presented at a National Working on Land Management and Property tax Reform in Nigeria. Organize by Estate Management Department UNILAG Akoka.
- Okusi MO (1999). Environmental Quality and Urban Planning: A case of Metropolitan, Lagos, Nigeria. The Lagos J. Environ. Vol. No.1.
- Olajide SE, Bello IK (2012). Element of estate management and Property valuation. Ado-Ekiti, Abisam Prinz Ltd.
- Olayonwa GO (2000). Property management: Principles and Practice, Iwo, Debo Publishing Company.
- Ominrin MM (2004). Guideline for the Effective Management of Public Infrastructure in Nigeria. The Estate Surveyors and Valuers. Vol.22 No.1 pp 15 – 21.
- Overare FO (2005). Surveying and Mapping of Synergies for Urban and Rural Development Sustainability. Paper presented the first National built Environment Summit Organized by the Nigeria Institute of Architect.