

INFRASTRUCTURE DEVELOPMENT AND ECONOMIC GROWTH; A CASE STUDY OF OWO TOWN

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Abstract

This paper has explored the relationship between infrastructure development and economic growth with particular reference to Owo city in Ondo State, Nigeria, for this purpose a time series data for the period between 1965-2014 to show the population growth rate in every five year was used. A systemic random sampling of one in every houses in some quarters/ major street was done through a well-structured questionnaire. Other source of information used were interviews, and observation. Data collected reviewed that there was upsurged in population which had a multiplier effect on some factors that caused the absurdity that resulted in urban decay of infrastructure in Owo. It was observed that the city lacked some social infrastructure like stable power/ electricity supply, good road network, water supply, drainage supply and commercial buildings like banks and market when compared with the rate of population growth. The study concluded that if urban city are well coordinated with vibrant law, defined polities and prudent administration, infrastructure development would be sustained. This paper recommends that government should give more consideration to the rehabilitation of infrastructure.

Keywords: Infrastructure, development, population, economic growth.

1. INTRODUCTION

Infrastructural facilities in urban area are essential developmental projects targeted at the need of the people to make life convenient for carrying out economic activities and is subjected to public regulation in terms of standard and pricing. These facilities consist of housing, water supply, drainage system, electricity supply, good access road, health facilities, solid wastes disposal etc.

They are spread within the glomeration of tribes, communities and people that reside in the urban set up so that they act as assets of growth to its domain. Cities are engines of growth, incubators of innovations and centre of social transformation. Therefore urbanisation is important for diversified and dynamic economies which increase natural productivity (Ude, 2008).

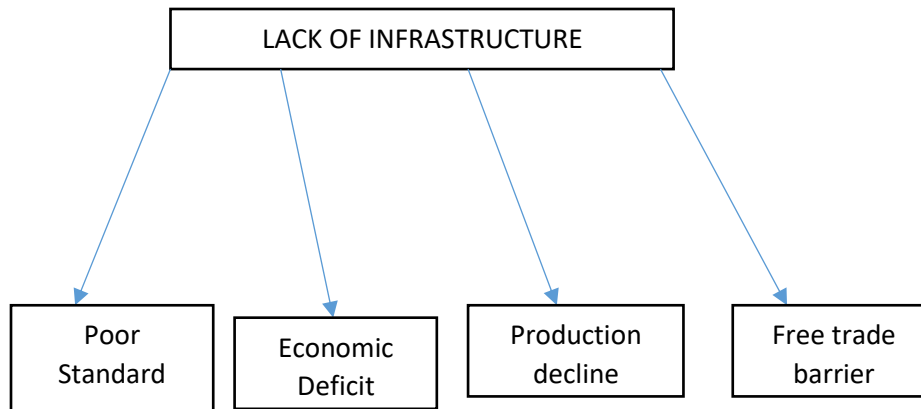
It is worthy to note that the quality and quantity of infrastructure available in a given place or society is the yardstick for measuring the general level of development of that area and a major determinant of poverty development and their respective value trends.

Kunle 2002 established the fact that there is a high positive correlation between a developed infrastructure and sustained high rates of economic growth and trade coupled with a significant reduction in poverty, inequality and environmental degradation.

In Nigeria, for more than three decades, government had been using various methods to resolve urban problems in the area of infrastructural provision, but had not find viable solution for it. As these options had failed, government had resolved to privatise some infrastructural facilities as electricity supply, solid waste disposal, some roads projects etc. This was implemented in order to remove the financial burden from government as her ability was no longer buoyant enough to fund facilities development and maintenance, and also wanted to experiment whether the adapted method is matured enough to provide sustainable solution that would bring the expected urban transformation. The

situation became more complicated because the selected private companies pretended to be rich in funding the program and also with qualified technical staff whereas most of them lack the financial responsibilities, the technical staff and genuine urban administrators that could explore the benefits of privatisation for people to enjoy instead they were greedy and exploitative.

1.2 Conceptual Framework



Source: Hassan 2017

As the conceptual framework stipulate lack of social infrastructure promotes poor standard living, economic deficit, economic decline and free trade barrier that have negative impact on economic development.

1.3 Study Area

Owo city is located in lat 07014'N and longitude 05035'E of the Greenwich. it is 48km of Akure capital city of Ondo State and 400km North East of Lagos, both in Nigeria. Owo and its environs spread over an area of about 20 kilometer square and it is about 150meters above sea level. According to calculation from 1965 census, Owo population was 283,249 (Ojo et al, 2013). the core area covers an area of 1,341 hectares (Denito Planning, 1980) with six main traditional quarters bounded by defence moat. each quarter has however overgrown far beyond the traditional moat and has incorporated many major landmarks in process of its spatial expansion. the major economic base is agriculture however other activities like commercial, industrial, health, educational services etc has been incorporated to boost it.

2. LITERATURE REVIEW

Akingbohunge (2002) confirmed that two thirds of urban housing in Nigeria were in varying degrees of serious disrepairs due to gross neglect and most of these houses and facilities were built sixty (60) years ago with low level of technology and without maintenance. He therefore suggested that a virile National Policy on maintenance that would guarantee adequate budgetary allocation, specify statutory standards of maintenance of all categories of building and to establish appropriate maintenance agencies that could overcome the existing decay and brought the expected transformation into urban areas. He elucidated further that the work of maintenance was a needed health care delivery system that had excellent abilities in persevering the performance standard, qualities and life span of facilities with a view of perpetuating its full capacity benefit and hence could be recommended as one of the measure that could curb urban decay.

Obabori and Olomu (2002) affirmed the inabilities of some cities to perform the expected basic functions. The rapid

rate of increase in population was one of the factors responsible for city decay. The resulting increase overwhelmed the facilities and places the entire population in jeopardy. This mass movement from sub-urban to city centres create a staggering population in urban centres so that the provision of housing and other facilities become a concern to architects. As the expected balance between population increase and facilities provision was lost in a city, the population pressure and intensity caused many feature of the city to be broken down and its basic amenities exhibiting non performance or partial performance due to deterioration. The optional remedy was the establishment of vibrant urban development Ministry to initiate, promote, consolidate and implement programs that would correct the wrong of the past. This ministry would enforce building codes and building bye- laws in construction of its structures and maintenance ability should conform to its Master plan while renewal should be necessary when situation demand it.

The authors concluded by recommending the adoption of sustainability strategy and all developments programs should be embarked upon by architects and other professionals in the building industry. Sustainable expansion scheme, sustainable satellite town scheme and sustainable new town scheme would form the basis for solving most of the decay in the city.

Umuokafor (2002) aimed to improve the infrastructure and maintenance of the environment of the area occupied by the urban poor. As the local or municipal government in the third world countries were financially handicapped and ill- equipped in personnel development in addressing planning, installation and maintenance of infrastructure, they gave it up to government who had a better financial base. Since the expected higher government could not generate the needed fund for possessing, operating and servicing of facilities, they eventually promoted privatisation because of the believe that the private companies would have enough money to own, operate, and service urban infrastructure. It was discovered that some of the private companies discriminate against investing on some facilities because the cost were high also in some areas they had majority of their inhabitants being impoverished. Such areas were devoid of infrastructure and the existing one and their environments were subject to decay. The author was agitating for a non- profit organisation that should be set up by residents of a particular area to provide cheaper services and also to provide some basic facilities which investors were non chalant about. Such organisations should be registered by local or city municipal government but their area of operation should be indicated. The author concluded that this was one of the sure ways to guarantee some services that were basic but not provided, and also to maintain cost recovery and increase coverage of the urban area and finally to reduce decay.

Adejumo and Taiwo (2006) observed the continuous increase in population had led to the multiplication of points of concentration and increase in sizes of individual concentration on Jos town and some Nigerian cities. This established enormous areas that cannot be totally covered by the Jos Metropolitan Development Board which some took the advantage by erecting illegal structures that contravened the law which finally end up in urban decay. Other factors that were responsible for city decay were poor mobility which makes effective monitoring to fail and inability of obeying planning and bye laws which are consequential to the emergence of slums. These slums lack sanitary facilities while light, air and privacy were grossly inadequate. Residential houses had been converted to commercial purposes along Bauchi road, Enugu road and Tafawa balewa Street because the available markets could not meet the supply of the needs of the people.

As a result of many of these developments, the form and structure of the town could not conform to the design of the master plan which are evidences of urban decay. The author concluded that in order to check and restore the city from further decay, government (local and Jos Urban Metropolitan) should frequently update their offices with population data of the town by contacting the National Population Commission (NPC) office in the state for projection and expansion. Illegal developers should be checked by planning offices and government should open up new layouts and provide infrastructures and other transforming facilities for development.

3. METHODOLOGY

The methodology involved the systematic random sampling of one in every five houses and fifty questionnaires were distributed in each of the chosen areas (Ehinogbe, Iselu, Ijebu and Otutu) and the total no of questionnaires distributed were two hundred (200). Other methods included online information, observation, interviews. The following information were extracted from the questionnaires

- i. Age of building
- ii. Household size
- iii. Water services
- iv. Material for wall construction
- v. Frequency of electricity

4. Drainage system FINDINGS, ANALYSIS AND DISCUSSION

Table 1: The Population of Owo from 1965-2014.

Year (Column 1)	Population	Every 5years increase (Column)
1965	80,413	-
1969	88,761	8,348
1974	100,425	11,664
1979	113,622	13,197
1984	128,554	14,932
1989	146,288	17,744
1994	165,511	19,223
1999	187,260	21,749
2004	216,011	30,721
2009	250,413	34,402
2014	290,297	39,884

Source: Survey data, 2016

2.5% growth rate from 1965-1999 and 3% growth rate from 2000-2013. from table, in 1965, the population of Owo was 80,413 and the projected population was 283,249 in 2013. In column 3 the population increase in every five years was recorded at the end of the 5th year starting from 1965. i.e. between 1965-1969, 1969-1974, 1974-1979 etc, the population increase is recorded as 8,348, 11,664, 13,197 respectively. This showed a progressive increase in population and this increase in population had a multiplier effects on other factors as high tenancy rate, extension of existing houses without permission from appropriate authorities, disobedience to Bye and Planning laws, non-conformity to master plan of the city, increase in water and electricity consumption without increase in power generation etc.

The results of the distributed questionnaires were as follows:

The age of the buildings could be identified as follows: 14.5% of the were between 1-20 years, 3 0% were between 21 -40 years, 15% were between 41-60 years and 40.5% were above 60 years(Table 2). From the above data ,55.5% of the buildings were built more than forty years ago and houses of longer years were more subjected to devaluation of weather condition and utilisation of occupants. Therefore, these sets of buildings are not fit for economic activities and can hamper the economic growth of the town.

. Table2: AGE OF BUILDING

S/N	Range	Frequency	Percentage
1.	1- 20	29	14.5
2.	21-40	60	30
3.	41-60	30	15
4.	Above 60	81	40.5
	Total	200	100

Source: Survey data 2016

The household size per room of respondents could be identified as follows: 1-4 persons per room 28%, 5-6 persons per room 51%, 8-10 persons per room 13% and above 10 persons per room 8% (Table 2). It can be deduced that 72% of the people residing in this environment live in rooms where 5 or more persons occupy a room. This resulted to congestion and if maintenance was not regular undertaken, this would be consequential to decay.

Table 3: HOUSEHOLD SIZE (No. of people per room)

S/N	Range	Frequency	Percentage
1.	1-4	56	28
2.	5-7	102	51
3.	8-10	26	13
4.	Above 10	16	8
	Total	200	100

Source: Survey data 2016

From the data collected, it was discovered that the major source of water supply within the study area is well. 71% accounted for well water, public water 15%, treated water 5%, and buildings without water supply was 14.5% (Table 7). Water is essential to life as it is used by man for bathing, washing, flushing of toilets, scrubbing. Olawande Table 7b: **Values of Physico- Chemical Parameters Waters in Owo and Environs** (1983) estimated the daily per capita need for these respectively for developing countries. From the data above, the 14.5% of the population were without water supply in the study area could cause havoc to the environment as there would be little or no water to carry out their daily activities which could result into outbreak of diseases.

Table 4: WATER SERVICES

S/N	Type	Frequency	Percentage
	Public water Supply	19	9.5
	Well water	142	71
	Treated water	10	5
	Not Available	29	14.5
	Total	200	100

Source: Survey data, 2016

On assessing the materials used for the construction of the walls, 58.5% were made of nonplastered mud, 29% of plastered mud, 7% made of timber, 3% made of non plastered cement block and 2.5% (Table 4) made of plastered cement block. The non-plastered mud walls absorbed water during raining season and lost them in dry season. The continuity of these seasonal changes in volume for many years caused the walls of the buildings to be characterised with cracks while the plastered mud walls had reduced cracks. The nonplastered cement blocks still absorbed water while the while the plastered cement blocks were far better. The untreated and less treated timber walls were attacked by insects and got destroy. The understanding of the techniques of construction and preservation was also an essential factors in prevention of decay.

Table:5 MATERIALS OF WALL CONSTRUCTION

S/N	Materials	Frequency	Percentage
1.	Mud (Plastered)	58	29
2.	Mud (not Plastered)	117	58.5
3.	Cement Block (Plastered)	5	2.5
4.	Cement Block (not Plastered)	6	3
5.	Timber	14	7
6.	Others	-	-
	Total	200	100

Source: Survey data, 2016

From the study, 71.5% of the respondents were not satisfied with the level of electricity supply in the area while the remaining 28.5% were satisfied (Table 9). This was partially due to the Federal Government's privatisation policy of the power sector and the unwillingness of the distribution companies to supply electricity to low income areas compared to public companies. Private companies were reluctant in extending their services to poorer household especially when large investments were required (Umeokaforo, 2002).

Table 6: FREQUENCY OF ELECTRICITY

S/N	Request	Frequency	Percentage
1	Frequent	57	28.5
2	Not Frequent	143	71.5
3	Total	200	100

Source: Survey data, 2016

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The study showed that infrastructure development plays a key role to sustain and accelerate the process of economic growth. More so, economic growth can be stimulated by making an investment in the major determinant of economic growth, that is, physical infrastructure. It therefore concludes that if city is well coordinated with vibrant law, defined policies and prudent administration, infrastructure development would be sustained.

5.2 Recommendations

- ❖ As a result of population increase due to natural growth in birth and migration from the rural to urban cities which had mounted pressure on the available facilities that caused urban decay, there should be periodical population statistics in Owo and other cities for infrastructural planning and development.
- ❖ The local government is the closest to the people, it should be well equipped with vibrant and effective legislation for enforcing planning laws and development control, train their personnel and provide the finance required to tackle decayed infrastructure in their council areas.
- ❖ Urban planning should be environmentally conscious; owners of buildings (private, public and commercial) should be mandated to provide waste bins from which wastes can be collected by waste management vehicles that has been assigned to their areas.

Further research study should focus on other infrastructures like market, hospitals and banking facilities and their benefits.

REFERENCES

- Adebiyi, J. K. (2007): Environmental Implications of 'Pure Water' consumption in Nigeria: The Ondo State Case Study, *Journal of Environmental Planning and Development* (1) 1: 1-8..
- Adejumo, I. A and Taiwo, A. A (2005). The Effects of Population Pressure on Residential Buildings in Nigeria, Urban Centres, Using Jos as Case Study. *Journal of the Nigerian Institute of Architectural* 4(4): 40-42
- Akingbohunge, D. O (2002) The Practice and Problems of Building Maintenance in Nigeria. The Basic Issues. *Journal of Environmental Technology*, Federal University of Technology Akure 1(122) 57-62.
- Hassan O. G and Nor A. A(2017): Lack of Infrastructure: the Impact on the economic development: A case study of Banadir region and Hir-shabelle, Somalia. ISSN 2244-607X (paper)
- Kunle Bello (2002): Infrastructural Development for sustainable National Growth- The Cornet. 4 Nov 2002 Pg 24.
- Muoghalu L. N. (2002): Urban Pollution and Waste Management.
- Okenwa G. (Ed.) *Planning Development and Maintenance of Infrastructure and growth of the National Economy*, Enugu Institution of Surveyors, Anambra State Chapter, Snaap Press.
- Obabori, A. O and Olomu, J. I. (2002). The Decaying city: Architects Where Are Thou? Nigeria Institute of Architects 2002 Annual general Meeting/Conference 49-55
- Olawande, P. A. (1983): A guide to tropical Environmental Engineering (NISER)
- Peltzmann and Tideman, T. N. (1972). Local Versus National Pollution control; *American Economic Review* (December)
- Ojo, I. C., Oni O. F and Ojo E. T (2017): Infrastructural Facilities Development and Urban Decay In Owo City. *Journal of Advance in Social Science and Humanities*.
- Omole, F. K. (2010): An assessment of Housing condition and Socio- Economic Life Styles of Slum Dwellers in Akure, *Nigeria Contemporary Management Research* 6(4) 273-290.
- Ude, C. A. (2008): The Challenge of Reforming Nigeria's Infrastructure Sector. *Journal of the Association of the Architectural Educators in Nigeria* 7(2); 55-62.
- Umeokaforo, K. J. (2002): The Decay City: New Partnership for Healthy Cities. The Nigerian Institute of Architect's Annual General Meeting Conference 2002: 38-41.
- Umeokafor, O. J. (2002) New Partnership for Health Cities. the Decaying city: The Architects' Delimma and Responsibilities. Nigerian Institute of Architects 2002 Annual General Meeting Conference 38-42.