

## Land Accessibility Factors in Urban Housing Provision in Nigeria Cities Case of Lagos

Gbadegesin, Taiwo; van der Heijden, Harry; Boelhouwer, Peter

**Publication date**

2016

**Document Version**

Accepted author manuscript

**Published in**

ENHR 2016: The European Network for Housing Research Conference

**Citation (APA)**

Gbadegesin, T., van der Heijden, H., & Boelhouwer, P. (2016). Land Accessibility Factors in Urban Housing Provision in Nigeria Cities: Case of Lagos. In *ENHR 2016: The European Network for Housing Research Conference: Governance, Territory and Housing* (pp. 1-15)

**Important note**

To cite this publication, please use the final published version (if applicable).  
Please check the document version above.

**Copyright**

Other than for strictly personal use, it is not permitted to download, forward or distribute the text or part of it, without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license such as Creative Commons.

**Takedown policy**

Please contact us and provide details if you believe this document breaches copyrights.  
We will remove access to the work immediately and investigate your claim.

# Land Accessibility Factors in Urban Housing Provision in Nigeria Cities: Case of Lagos.

**J.T. Gbadegesin**

OTB, Research Institute for the Built Environment  
Delft University of Technology, Delft, The Netherlands.  
e-mail: [J.T.Gbadegesin@tudelft.nl](mailto:J.T.Gbadegesin@tudelft.nl)

**H. van der Heijden**

OTB, Research Institute for the Built Environment  
Delft University of Technology, Delft, The Netherlands.  
e-mail: [H.M.H.vanderHeijden@tudelft.nl](mailto:H.M.H.vanderHeijden@tudelft.nl)

and

**P. Boelhouwer**

OTB, Research Institute for the Built Environment  
Delft University of Technology, Delft, The Netherlands.  
e-mail: [P.J.Boelhouwer@tudelft.nl](mailto:P.J.Boelhouwer@tudelft.nl)

## Abstract

*The housing need of the burgeoning population, economic development and increasing urbanization have intensified the significance of land accessibility as an avenue towards improving housing provision in Nigerian urban centres. Literature in housing provision in Nigeria identified land accessibility factors in urban centres, yet there appears a gap in empirical housing studies on the specific orders of the accessibility from the perspectives of the urban low-middle income housing providers in Nigeria. This study examines the dimensions, extent of importance of the factors and their joint interactive influence on housing provision. Data were collected through a validated survey questionnaire, backed up with interview in Lagos. Analysis was performed using descriptive and inferential (t- test, relative importance index, RII and correlation statistics). Findings show that tenure security is the major accessibility factor and the least factor is availability (scarcity). It is further revealed that each identified factor influences one another in a different dimension in providing for urban housing. In conclusion, the need for an efficient land administration/ governance towards improving urban housing provision is recommended.*

**Keywords:** Housing, Land Accessibility, Lagos, Nigeria, Urban Centre.

## Introduction

Land provides a place for housing and cities and is a basic factor of economic production. International Fund for Agricultural Development (IFAD) (2015) emphasized that land is fundamental to the lives of people, but unfortunately access is becoming more tenuous than ever. Land is the base for an optimum combination of other factors of production. Land in sub-Saharan Africa (SSA) has a significant historical connotations and its administration has an origin from colonial era (Binot et al., 2009). Tenure system is often operated in parallel contexts within plural or dual systems of private and state respectively in Nigeria (Aluko & Amidu 2006). Owei (2007) described the system as two forms of ownership and administration- customary and state ownerships.

In Nigeria, Odum and Ibe (2011) averred that titles to land under the customary laws is controlled by community, individual, family or groups and that of state ownership is through legislation, known as Land Use Act (LUA). Figures 1, 2 and 3 describe the structures of the tenure systems in pre-colonial, colonial and post-colonial eras (current state of the art) in Nigeria.

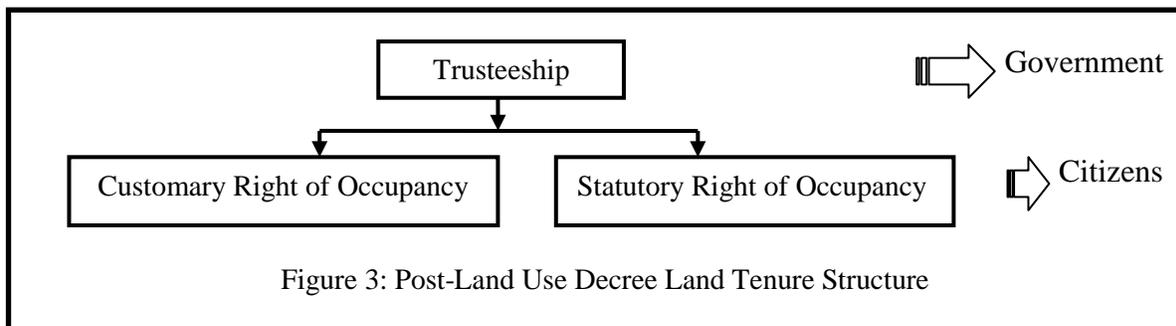
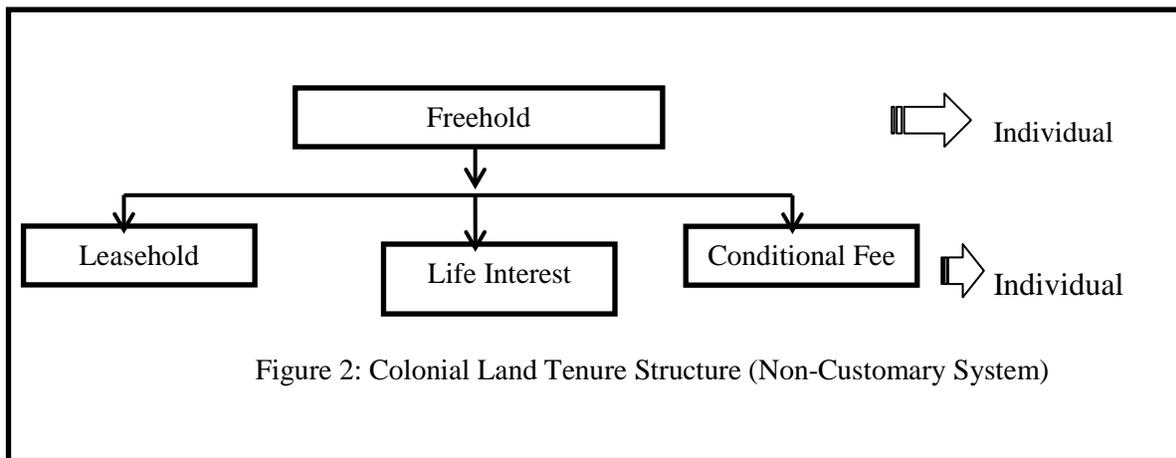
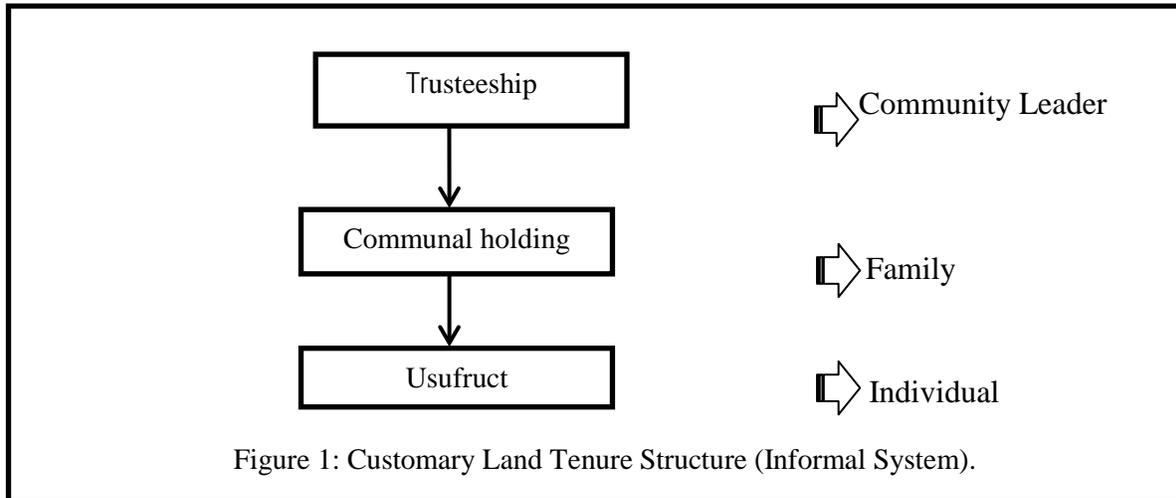


Figure 1 describes the nature of customary land tenure, an inherited informal land market system that does not permit alienation through sale or other transactions. The system had been in operation prior to colonial administration where a prospective land user or housing provider has to consult the family or community leaders by fulfilling all the traditional obligations and rites. The situation is characterised with lack of credibility and suitability of land being used as collateral for loan in the formal financial institutions. With the increase in population and corresponding increase in demand for land especially in urban centres, it was dawned on the colonial administration then that Nigerians could no longer continue to remain in uncertainty on development without a land policy that addresses the inherited problem. As a result, various non-customary land tenures were introduced in order to change ownership structure and the techniques of ownership of interest in land. In Barlowe (1978), various strategies of land acquisition were imported from Britain including patents or grants from Government, private grant by deed, grant by device, acquisition under the laws of decent, forfeiture, dedication, eminent domain, prescription or adverse possession, accretion and escheat. These strategies are summarily presented in Figure 2 as colonial land tenure structure. Yet, the strategies could not resolve the challenge of land accessibility because of the proliferation of crises and community clashes on land. According to Adisa (2007), the colonial administration met on ground a traditional land use system, but rather than developing it further, they introduced European ideas with personal agenda to acquire absolute rights over the lands that British activities occupied then and also due to misconception held about the traditional land tenure systems.

Consequently, the British tenure system triggered an increasing demand for land in the public and private sectors and land conflicts escalated till the time of civil wars. Against the foregoing circumstances, Land Use Decree (now Act, LUA) was promulgated in 1978 with the main objectives of harmonisation of diverse tenure systems in Nigeria especially between the northern and southern Nigeria, refashioned by the colonial rule. It was also meant to ensure accessibility, registration, equity and egalitarian distribution of land. The mode of operation of LUA is described in Figure 2.

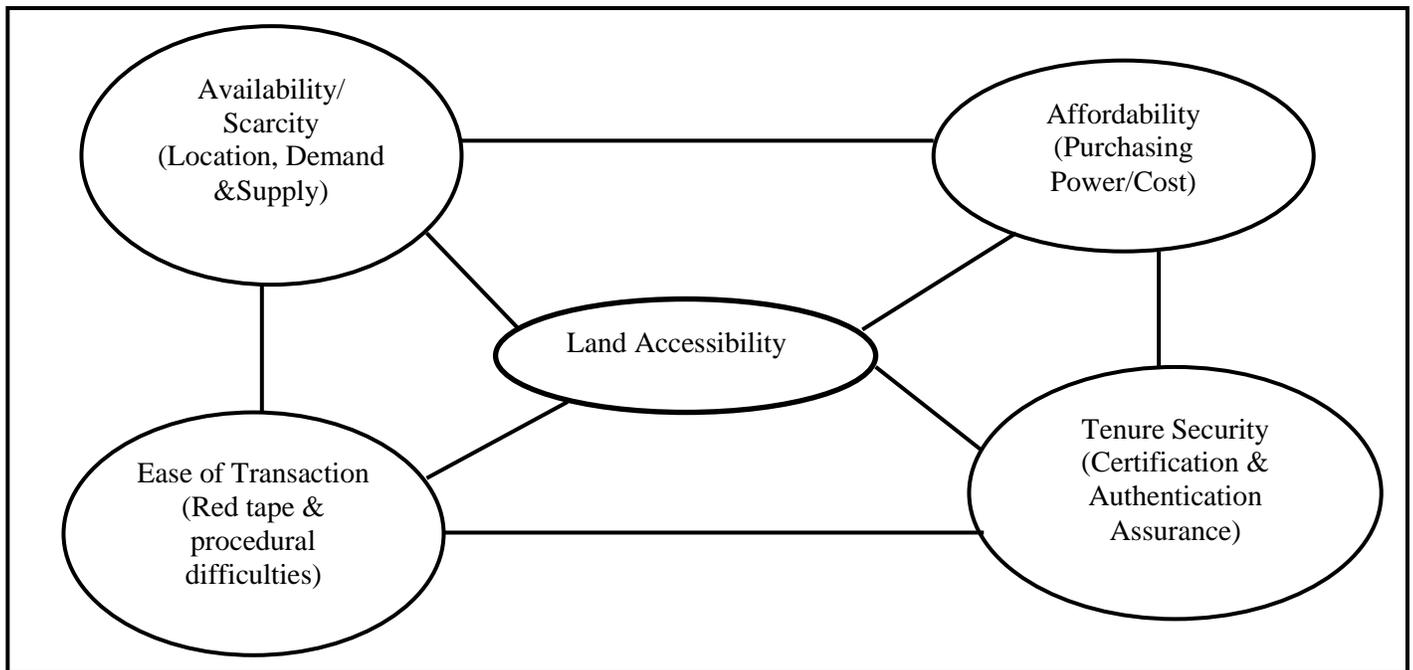
Following the LUA, cost of land is still high and unaffordable. There is an unresolved conflict between the state, federal authorities and traditional owners (*omo-onile*) in urban centres in Nigeria. The combined effect of the two land acquisition approaches, with the demographic and socio-economic changes result to land inaccessibility in urban centres in Nigeria (Omirin, 2002). The alarming rate of lack of access to land has also provoked researches into some aspects of accessibility (Udechukwu, 2008; Agbola and Olatubara, 2007; Adisa, 2007; Uluocha, 2007; Iseh, 2007). Some of the causes attributed to the accessibility problems including stringent titling procedures, boundary/ communal conflict, litigations operation of plural legal system, affordability problem, difficulty in transaction, location of land, demand and supply in housing market (Omirin, 2002; Boonyabanacha, 2009). However, as studies in Nigeria have identified accessibility as a major problem with the theoretical description of the dimensions, there is a dearth of empirical studies that specifically pinpoint the actual dimension of land accessibility and the level of significance of each category of accessibility in Nigeria. Hence, the central question in this study: *what are the specific land accessibility factors that confront urban housing providers (autonomous self-providers) in the order of influence, relative importance and the extent of relationship among the factors on Nigerian urban housing provision?* In addressing this question, this paper evaluates the four identified accessibility factors in order of influence. It also examines relative importance of each and the extent of relationship among the factors. It is concluded on the need for an improved land administration system in cities in Nigeria using Lagos as the study area.

To achieve the aim of this study, this paper is structured into four sections. While section one provides the background information on the state of land matters in Nigeria, leading to the central research questions as presented earlier on, section two elaborates on the theoretical and conceptual underpinning in relation to land accessibility in Nigerian urban centres. In section three, the study area, the research method and findings are reported. This study is concluded in section four with recommendations.

### Theoretical and Conceptual Underpinning on Land Accessibility Concepts

UN-HABITAT (2008) describes land accessibility in terms of *access* and *rights*. Access is defined as opportunities for temporary or permanent use and occupation of land for purposes of shelter, productive activity, or the enjoyment of recreation and rest. Land access is obtained either by direct occupation, exchange (purchase or rental) through membership of family and kin groups, or by allocation by government, other land owners or management authorities. Rights are described as socially or legally recognized entitlements to access, use and control areas of land and related natural resources. Lack of access to land rights in Nigeria major cities for housing provision is attributed to poor or weak governance of land (UN-HABITAT, 2002; 2003; FAO, 2007a). Weak governance, whether in the formal land administration (government) or customary tenure arrangements, implies that the land rights are not protected (Olujimi and Iyanda, 2013). According to the authors, informal transfers and informal ownership are not protected by law, and the protection offered by customary tenures may be weakened through external pressures, and may not be extended to new bidders. Similar to the opinion of UNDP (1997), either of the poor or weak governance leads to dispute and provides opportunities for the powerful to claim the land of others. Consequently, there emerged these dimensions as stated by Boonyabancha (2009): how to get land and pay for it, how to keep the land and how to build a new strong community and social support on that land. These are the impetus of land accessibility expressed as availability, affordability, ease of transaction and security of tenure in Nigeria (Omirin, 2002; Agbola and Olatubara, 2007; Adisa, 2007; Uluocha, 2007; Udechukwu, 2008). These concepts span existing land and housing provision literature. Figure 4 provides the framework.

Figure 4: The Nature of Urban Land Accessibility in Nigeria.



#### *Availability (Scarcity)*

Facilitation of access to land is described as possibilities to acquire it in a particular location and readiness to pay for the land (Agbola and Olatubara, 2007). It is practically important that land for urban housing

provision should be easily accessible to the urban location without embargo or restriction and the option for location preference. This concept is also viewed as the physical access to a buildable plot in a particular location (Agbola and Alabi, 2000). In other word, when such lands are available, individuals, associations and corporate bodies can have the lay-out of their plots. In relation to this assertion, Agbola and Agbola (1997) opined that principally the land law should enable municipal and town planning authorities in any urban centre to acquire land within three to five kilometres of the city limits for future housing developments. Iseh (2007) indicated that land in cities like Lagos is limited in supply and cannot be increased easily or given out at low cost. Often the demand supersedes the supply as land naturally cannot be produced except in the few cases of land proclamation and change in uses, thus its supply is fixed. The scarcity of land and the escalating prices arises from the basic economic principles of supply and demand. The fixed supply makes the economic factor highly valuable. The availability issue of land in a particular location in cities like Lagos is influenced by the territorial land area (Babade, 2002). For instance, Lagos State has land area of 357,700 hectares for a population of about 15 million. Out of this land area, about 60,839 hectare consist of Lagoons, waterways and a large proportion had already been developed (Iseh, 2007). In addition, Omotola (1988) has identified that the Land Use Act has had the greatest impact on land availability for development purpose in the country today.

### *Affordability*

Affordability has been at the centre of international debates on housing policy reforms (Boelhouwer and van der Heijden, 1992; Linneman and Megbolugbe, 1992). Ndubueze (2009) simply describes affordability as the ability to afford housing. Often in literature, there are different dimension to affordability description which implies an ambiguity and a lack of consensus (Linneman and Megbolugbe, 1992). In the opinion of Quigley and Raphael (2004), as cited by Ndubueze (2009), affordability is viewed as a connective relationship of the distribution of housing prices, housing quality, income, the ability of households to borrow, public policies affecting housing markets, conditions affecting the supply of new or refurbished housing, and the choices that people make about how much housing to consume relative to other goods. Generally, housing affordability literature emphasised on the housing price or rent and housing standard with less or light burden on consumers and that which satisfy the expectation of the households in terms of family size, norms (MacLennan and Williams, 1990; Hancock, 1993; Bramley, 2003; 2005). An opportunity for living cost after the payment of price or rent (that is income and expenditure) is stressed by Stone (1993 and 2006) and Freeman & Whitehead (1995) by saying that affordability denotes the ability of households to pay the costs of housing without imposing constraints on other expenditure especially living costs.

In Nigeria, Ndubueze (2009) developed a new composite approach to measuring housing affordability and employed it to examine the nature of urban housing affordability in Nigeria using Nigerian Living Standards Survey data 2003-2004 in a developed aggregate housing affordability model. Findings show very high levels of housing affordability problems in Nigeria with about 3 out of every 5 urban households experiencing such difficulties. The challenge was attributed to changes in socio-economic groups, housing tenure groups and policy in Nigeria. Udechuckwu (2008) reported that most Nigerians have resorted to the informal illegal land market because of the escalating price of land in cities like Lagos. Okonkwo (1986) indicated that low- income group are highly vulnerable of land due to their lack of economic and political power in urban centres in Nigeria. Ademiluyi and Raji (2008) anchored on this basis to justify the reason why there is a proliferation of slums and squatter settlements.

### *Ease of Transaction*

This is described in terms of procedural delays and red tape (Iseh, 2007). As stated by Omirin (2002), the procedures in the processing of land application and securing government consent in Lagos for instance are hectic. One of the main objectives of LUA is to achieve land accessibility with ease as stipulated in section 5 and section 6 of the Act. However, this procedure has turned to procedural problems where there is perambulation between different departments unnecessarily. In the study conducted by Udechuckwu (2008) on the obstacles to homeownership, it was indicated that legitimate transaction is often hampered due to a long process of administrative protocol of obtaining Government consent for land title perfection. The cost of securing title is often high and any land with a reliable title of ownership poses an encumbrance on the property in the market. Studies attributed this challenge to lack of information (Uluocha, 2007; Agunbiade et al., 2015).

### *Security of Tenure*

Access to land with the assurance of security of tenure has significant implications for development (Fabiya, 1990; FAO, 2006; 2007b). In relation to the developing countries, UN-HABITAT (2008) posits that the security of land rights extends beyond itemising a complete and comprehensive guide to the broader issues of land policy, management and reform. It includes significant provision of the security framework for development and poverty reduction through equitable and effective institutions. FAO (2002) and UN-HABITAT (2003) described tenure security in three ways. One, the degree of confidence that land users will not be arbitrarily deprived of the rights they enjoy over land and the economic benefits that flow from it. Two, the certainty that an individual's rights to land will be recognized by others and protected in cases of specific challenges. Three, the right of all individuals and groups to effective government protection against forced evictions. Ndukwe (2001) emphasised the significance of land security for the purpose of ownership and enjoyment. A land right is secured when the owner is free of all encumbrances on the title of such land. Registration cannot be misconstrued from title security (Omotola, 1988). The history of land insecurity in Nigeria dated back prior to independence when land registration Act, 1924 and registration of title Act 1935 merely served as an avenue to make a piece of land a admissible evidences. Despite the legal instruments, there were plethora of litigations bordering round land (Iseh, 2007).The promulgation of Land Use Decree (now Act), LUA of 1978 was to make land accessible to everyone. The natural inclination that land is yet attached to customary ownership propelled individual land owner to backdate the ownership to the date earlier than 1978 since private sales of vacant land after the date is prohibited.

### **The Study Area: Lagos**

Lagos is the former federal capital of Nigeria, located on the south-western coast of Nigeria, between latitude 6° and 7° North of the equator, and longitude 3° and 4° east of the Greenwich Meridian. Its metropolis is located at 6°34'60"N, 3°19'59"E along the West African coast, and forms larger component part of the Lagos conurbation. The current geographical area of Lagos is about 356,861 hectares of which about 21% equivalent to 75,755 hectares are wetlands. The environment is naturally endowed with tropical rainforest climate, typical of southern Nigeria.

With the advent of British in 1861, Lagos was administered as a city state with its own separate administration and a colony until its merger with Western Nigeria in 1951. The administration continued until 1953 when it was declared as a federal capital territory. It became an independent state in 1967, following the civil war as the FCT was relocated to Abuja in 1976.

Lagos has five division administratively; Lagos, Ikorodu, Ikeja, Epe, and Badagry with its capital at Ikeja. In 1991, it was further divided into 20 local governments under the federal system of government. As reported by Filani (2012) in 2006 the population of Lagos state was 9.1 million, although this figure has been vehemently disputed by the Lagos state government, who conducted an independent census and came up with a figure within 17-18 million.

There is a growing number of largely unskilled, unemployed and homeless migrants from the rural areas of the country into Lagos, who live in slum communities or create new ones that are not serviced by basic urban facilities, services and amenities. The growth of the population in the metropolitan Lagos has assumed a geometrical proportion, the provision of urban infrastructure and housing to meet this demand is not at commensurate level. This has resulted in acute shortage of housing to the teeming population with Lagos alone accounting for 5 million deficit representing 31% of the estimated national housing deficit. Housing inadequacies are far reaching; both quantitative and qualitative; even those households with shelter are often subjected to inhabiting woefully deficient structures as demonstrated in the multiplication of slums from 42 in 1985 to over 100 by January 2010.

Again, Alimosho local government has been confirmed as the most vulnerable location of land and housing crisis in Lagos (Opoko and Ibem, 2013). Prominent in this area are Ipaja, Ayobo zones.

Moreover, Lagos is a classical example that represents the situations in other cities in Nigeria and any measure or approach that works in the study area has great potentiality of being effective elsewhere. This has therefore made Lagos metropolis to be used as constant test case for urban policy studies (Oni, 2011). Figures 5 and 6 presents Lagos Maps.



Figure 5: Lagos Map showing the mainland districts. Filani (2012) The Changing Face of Lagos.



Figure 6: Map of Lagos state showing Lagos megacity and other districts in the state Filani (2012) The Changing Face of Lagos.

As a result of the increasing population growth and expansion of socio-economic activities, needs for land become imperative.

## Research Method

The need for an empirical investigation into the *four* concepts of accessibility in Nigeria necessitates this study. A pilot study was first conducted on questions bordering on land accessibility factors (*affordability, ease of transaction, availability and security of tenure*) within Lagos, focusing on Ipaja, Alimosho local government area as the most vulnerable area for land and housing crisis among other areas in Lagos (see Opoko and Ibe, 2013). The outcome of the pilot study helped to identify 300 autonomous self-housing providers as the sampling frame for this study. Responses from the interview resulted to a survey questionnaire. Thirty copies of the questionnaire were administered again for validation and reliability test confirmed at Cronbach's Alpha 0.731. The sub-questions in the instrument were based on the review of previous studies on land accessibility factors and preliminary findings from the pilot study. In constructing the questionnaire, the responses were made to generate five tested statements under each accessibility factor, thus made the items in the instrument up to twelve. The interview and the questionnaire administration were conducted with the aid of research assistants (1 master student and four bachelor students on industrial attachment in real estate surveying and valuation firms) to 200 autonomous (self-help) housing providers, majorly landlords and one-man business local builders, using a random sampling technique on the identified sample. This entails approaching a housing provider who is willing to attend to the questionnaire. 180 instruments were collected and useful for this study. While analyzing, all responses under each factor were collapsed in order to identify the most influencing factor. The use of t- test became useful while rating individual accessibility factor. One sample t-test is a statistical procedure used to examine the mean difference between the sample and the known value of the population mean. Here, we draw a random sample from the population and then compare the sample mean with the population mean and make a statistical decision as to whether or not the sample mean is different from the group mean (Statistics Solutions, 2013)

To address the central question in the paper, three main objectives are pursued as follows:

- (i.) We identified and examined land accessibility factors affecting housing provision empirically
- (ii.) We examine relative significance index( RSI) of the identified factors
- (iii.) We also examined the correlation (extent) of relationship among the accessibility factors.

**Empirical Findings**

Table 1 presents the result of the empirical finding on the land accessibility factors in Nigeria.

Table 1: One Sample t-test of Land Accessibility Factors affecting Housing Provision

<i>One-Sample Statistics</i>							
<i>Factors</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>	<i>t</i>	<i>df</i>	<i>P</i>
Affordability	180	12.46	1.81	.135	-18.162	179	.000
Availability	180	11.71	1.79	.134	-23.886	179	.000
Security of Tenure	180	18.53	2.64	.197	18.445	179	.000
Ease of Transaction	180	16.91	3.25	.242	8.294	179	.000

Using the group mean value (**14.92**) derived as the average of all factors, the results in Table 1 shows that each factor is significantly different from the group mean value at 0.05 level of confidence. Evidences in the table indicate that security of tenure has the highest mean and t-values of 18.53 and 18.445 respectively. Ease of transaction is considered as the second important land accessibility factor. It has the mean value of 16.91 with t-value of 8.294. Next is affordability factor with the mean value of 12.46, t-value equal -18.162. Lastly, land availability factor has the mean value of 11.71 and t-value of -23.886.

To determine the relative or comparative extent at which each land accessibility factor has influences on housing provision in Nigeria cities, we utilized relative importance/significance/impact index (RII or RSI), the model in Figure 7 .

$$\frac{\sum(f_{w1}+f_{w2}+f_{w3}+...f_{wn})}{f_{jwi}} (0 \leq RII \leq 1)$$

Figure 7 : Relative Importance/ Significance Index.

where;

$\sum$  =summation,  $w_1$  to  $w_n$ = assigned weight,  $w_i$ = the highest assigned weight,  $f_j$ =addition of all frequencies, and  $w_i$ = the highest assigned weight.

The responses are gauged on Likert Scales of range from High to Low.

High=3, Moderate=2, and Low=1.  $f_{w1}$ = Total frequency under High multiplied by  $w_3$ = weight (i.e. 3)

$f_{w2}$ = Total frequency under Moderate multiplied by  $w_2$ = weight (i.e. 2)

$f_{w3}$ = Total frequency under Low multiplied by  $w_1$ = weight (i.e. 1)

$f_{jwi}$ = Addition of all frequency multiplied by the highest weight( in our case, 3)

This model is often adopted while examining the impact or significance level of one factor on a policy, causal factors or urban matters (Kometa et al., 1994; Sambasivan and Soon, 2007). Gündüz et al. (2013) and Muhwezi et al. (2014) used the RII method to determine the relative importance of the various causes of delays in construction projects. Adopted also in housing maintenance factors (El-Haram and Horner, 2002). Table 2 presents the outcomes of the analysis.

Table 2: The Relative Extent at which each Land Accessibility Factor Influences Housing Provision

<i>Accessibility Factors</i>	<i>High</i>		<i>Moderate</i>		<i>Low</i>		<i>RII (RSI)</i>	<i>Rank</i>
	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>		
Land Affordability	134	74.4	22	12.2	24	13.3	0.870	<b>3</b>
Land Availability	22	12.2	50	27.8	108	60.0	0.507	<b>4</b>
Ease of Transaction	166	92.2	12	6.7	2	1.1	0.970	<b>2</b>
Security of Tenure	176	97.8	2	1.1	2	1.1	0.989	<b>1</b>

Table II shows the extent at which each land accessibility factor poses constraint to housing provision. Similar to the previous findings in Table I, security of tenure (**0.989**) exhibits highest level of importance. It is followed by ease of transaction (**0.970**). The least factor in term of significance is also found to be land availability (**0.507**).

The implication from these findings in Tables 1 and 2 is that if the right to land and landed property is not secured, there would be difficulty in transaction and lack of confidence in the authenticity of the land is hampered. Consequently, housing provision is impeded in cities. This aligns with opinions of Karrina (2013), Wakely (2014) and Gbadegesin et al., (2016) that secured rights to a landed property is a key subject in an institution for improvement in housing provision to be guaranteed. Table 3 explains the extent of relationship among the land accessibility factors.

Table 3: Correlation among Land Accessibility Factors on Housing Provision in Lagos, Nigeria.

<i>Correlations</i>					
<i>Factors</i>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Land Affordability	Pearson Correlation	1	-.104	-.063	-.128
	Sig. (2-tailed)		.165	.402	.086
	N	180	180	180	180
Land Availability	Pearson Correlation	-.104	1	.427*	.326*
	Sig. (2-tailed)	.165		.000	.000
	N	180	180	180	180
Security of Tenure	Pearson Correlation	-.063	.427*	1	.583*
	Sig. (2-tailed)	.402	.000		.000
	N	180	180	180	180
Ease of Transaction	Pearson Correlation	-.128	.326*	.583*	1
	Sig. (2-tailed)	.086	.000	.000	
	N	180	180	180	180

\*. Correlation is significant at the 0.05 level (2-tailed).

The results in Table 3 indicate that land *affordability* negatively correlated with other factors and such correlations were not significant at 0.05. This implies that the extent of joint influence of affordability with other factors on housing provision is not strong. Also, Land *availability* is positively and significant correlated with security of tenure, ease of transaction and security of tenure is also found to be positively and significantly correlated with ease of transaction. This implies that security of tenure, availability and ease of transaction are jointly related to influence housing provision in the city.

The foregoing observation confirms the findings by (Aluko, 2002; Omirin, 2003; Udechukwu, 2008 and Boonyabancha, 2009), that accessibility is a combined product of one or more influences of availability, affordability, ease of transaction and security of tenure. It also revealed how significant each factor is, on urban housing provision, thus providing a clear policy direction than general opinion of accessibility.

## **Conclusion and Recommendations**

### *Conclusion*

In this article, it is found that while security of tenure, ease of transaction and affordability are three major land accessibility factors that impede housing provision, availability (scarcity) is the least accessibility factor. It is also found that the extent of joint influence of affordability with other factors on housing provision is not strong. While all the factors are related, it is further observed that the security of tenure, availability and ease of transaction are jointly related to influence housing provision in the city.

### *Recommendations*

The significance of land accessibility for an improved housing provision in Nigeria cities has been empirically demonstrated in this article. Having identified the dimensions and how all the factors are related, it is important that land administration and governance should be made efficient in cities. The implication for this is that policy suggestions are imperative for overhauling and improvement as follows: To ensure a secured tenure on land in order to restore the confidence of market actors, there is a need to unify the parallel operation of land use act (LUA) and historical customary system. This can be ascertained by integrating the institutions and interests of customary system that are germane to the owners of land and then reinforcing the institutions in the existing LUA. LUA should be reviewed and made an effective separate legal instrument and operational in the land market. The stringent land titling procedures should be reviewed and opportunities extended to all the land owners to procure title to their lands free or at a subsidized rate. This will go a long way to stimulate the housing market. It will also ensure easier access to sources of finance from formal financial institutions. Socio-economic lives of urban dwellers should be upgraded by creating employment and increasing wages. Finally, Nigeria needs a cadastral survey that maps out the entire sizes of land in the country for record purpose. This will facilitate data availability on land in cities in terms of location and values.

## **References**

- Adisa, S.Y.(2007) Land Acquisition Techniques as a major Constraint to Housing Production in Nigeria. In T.O.Nubi, M.M. Omirin and A.S. Afolayan; *Private Sector Driven Housing Delivery: Issues, Challenges and Prospects*. Department of Estate Management, University of Lagos, Lagos. ISBN 978-48753-0-1.
- Ademiluyi, I. & Raji, B. (2008) "Public and Private Developers as Agents of Urban Housing in sub-Saharan Africa: the Situation in Lagos State" *Humanity and Social Sciences Journal* 3(2) 143- 150.
- Agbola, Tunde and Agbola E.O.(1997) "The development of urban and regional planning legislation and their impact on the Morphology of Nigerian Towns", *Nigeria Journal of Economics and Social Studies*.Vol.39, No 1, Pp.123-144.
- Agbola, Tunde and Alabi, M. (2000) "Sustainable Housing Delivery: Lessons from International Experience". Paper presented at the National Workshop on Sustainable Housing Delivery in Nigeria: Challenges for Public/Private Partnership", Sheraton Hotel, Abuja, 31 July-1 August, 2000.
- Agbola, T., Olatubara, C.O and Olorunfemi, F.B (2002), "Urban land and infrastructure; issues, challenges and

- strategies in the design and management of Nigerian Cities” Proceedings of the National Conference on the City in Nigerian organized by the Faculty of Environmental Design and Management, Obafemi Awolowo University, Ile-Ife, 9th –11th October, pp28-42
- Agbola, T. and Olatubara, C.O (2007), Private sector driven housing delivery in Nigeria: issues, constraints, challenges and prospects. In T.O.Nubi, M.M. Omirin and A.S. Afolayan; Private Sector Driven Housing Delivery: Issues, Challenges and Prospects. Department of Estate Management, University of Lagos, Lagos. ISBN 978-48753-0-1.
- Agunbiade, M.E., Rajabifard, A. and Bennett, R.(2015). What scope for integrating land management policies, land administration processes and data infrastructures for housing production in Nigeria? *Journal of Housing and the Built Environment*. DOI 10.1007/s10901-015-9443-8
- Ajanlekoko, J.S. (2001), “Sustainable housing development in Nigeria- the financial and infrastructure implication”, International Conference on Spatial Information for Spatial Development held in Nairobi, Kenya, 2nd-5th October, 14pp.
- Aluko, B.T.(2002), Reforming land policies for effective administration. A paper presented at a National Conference on Land Management and Taxation organized by the Department of Estate Management University of Lagos, 16 and 17 July.
- Aluko, B.T & Amidu, A. (2006), 'Urban low-income settlements, land deregulation and sustainable development in Nigeria', Promoting Land Administration and good Governance, 5th FIG Regional Conference Accra, Ghana, March 8-11.
- Aluko, B.T (2002) “Reforming land policies for effective administrative in Nigeria”, Proceedings of a National Conference on land Policy Reforms and Property Taxation in Nigeria organized, University of Lagos, Lagos, 16th & 17th July, pp18-27
- Babade, T. (2002), Access to urban land in Nigeria: an analysis of the activities of Lagos State land use and allocation committee. Land management and property tax reform in Nigeria”, Proceedings of a National Workshop Organized by the Department of Estate Management. University of Lagos, Lagos.
- Barlowe, R.(1978) Land Resources Economics. London: Prentice-Hall Incorporated.
- Binot, A, Blomley, T, Coad, L, Nelson, F, Roe, D, & Sandbrook, C. (2009), 'Community Involvement in Natural Resources Management in Africa- Regional Overviews' in D Roe, F Nelson, & C Sandbrook (eds), Community Management of Natural Resources in Africa: Impacts, Experience and Future Directions, International Institute for Environment and Development (IIED).Pp 13-54, London
- Boelhouwer, P. & Van Der Heijen, H. (1992) Housing systems in Europe: Part 1. Comparative study of housing policy Housing and urban studies, no 1. Delft, Delft University Press.
- Boonyabancha, S. (2009), 'Land for Housing the Poor - By the Poor: Experiences from the Baan Mankong Nationwide slum Upgrading Programme in Thailand', *Environment & Urbanization* 21(2) 309-329.
- Bramley, G. (2003) Local housing need and affordability model for Scotland communities. Scotland research report number 21 communities Scotland. Edinburgh.
- Bramley, G. (2005) Affordability comes of age: Concepts, incidence and policy significance. London.
- El-Haram, M.A. and Horner, M.W. (2002), "Factors affecting housing maintenance cost", *Journal of Quality in Maintenance Engineering*, Vol. 8. Iss 2 pp. 115 – 123
- FAO (2002). Land tenure and rural development. FAO Land Tenure Studies #3. Rome

- FAO, 2006. Reclaiming our lives: HIV and AIDS, women's land and property rights and livelihoods in southern and East Africa - Narratives and responses. Rome, FAO.
- FAO (2007). Improving tenure security for the poor in Africa synthesis paper: Deliberations of the legal empowerment workshop – sub-Saharan Africa. LEP working paper # 8 workshop for sub-Saharan Africa
- FAO. 2007. Good governance in land tenure and administration. FAO Land Tenure Studies #9. Rome.
- Fabiyi, Y.L (1990), ‘Land policy for Nigeria: issues and perspectives’, An Inaugural lecture, Obafemi Awolowo University, Ile-Ife, June.
- Federal Republic of Nigeria (1978), The Land Use Act, No 6, Government Printers, Lagos
- Filani, M. (2012) The Changing face of Lagos, From Vision to Reform and Transformation. Cities without Slum. Cities Alliance
- Freeman, A. & Whitehead, C. (1995) Affordability revisited in English housing association assured new let accommodation. West Yorkshire: Halifax Building Society, Halifax.
- Gbadegesin, J.T., Oladokun, S.O., Van Der Heijden, H. & Boelhouwer, P.(2016). Formulating An Effective Public Private Partnership Policy For Housing Provision In Nigeria Urban Centres: A Conceptual Approach. *9th cidb Postgraduate Conference February 2-4, 2016, Cape Town, South Africa. “Emerging trends in construction organisational practices and project management knowledge area”*
- Gündüz, M., Nielsen, Y., and Özdemir, M. (2013). "Quantification of Delay Factors Using the Relative Importance Index Method for Construction Projects in Turkey." *J. Manage. Eng., 10.1061/(ASCE)ME.1943-5479.0000129*, 133-139. Technical Papers
- International Fund for Agricultural Development, IFAD (2015). Land tenure security and poverty reduction. Policy and Technical Advisory Division
- Iseh, F.I. (2007) Land Accessibility in Nigeria: The Contributions of Lagos State Land and Infrastructural Policies. In T.O.Nubi, M.M. Omirin and A.S. Afolayan; *Private Sector Driven Housing Delivery: Issues, Challenges and Prospects*. Department of Estate Management, University of Lagos, Lagos. ISBN 978-48753-0-1.
- Karrina, R.(2013) Institutional Ignorance in an urbanising World: Does new institutional economics provide a useful tool for understanding the provision of land and housing to the poor? *DPU Working Paper No.154*. The Bartlett Development Planning Unit. UCL.
- Kometa, S. T., Olomolaiye, P. O., and Harris, F. C. (1994). “Attributes of UK construction clients influencing project consultants’ performance.” *Constr. Manage. Econ.*, 12(5), 433–443.
- Linneman, P. D. & Megbolugbe, I. F. (1992) “Housing affordability - myth or reality”. *Urban Studies*, 29 (3-4): 369-392.
- Mabogunje, A.L. (2002) “Land management in Nigeria: issues, opportunities and threats”, Lead paper at the National Conference on “Land Management and Taxation”, University of Lagos, Lagos, July 16th, pp1-7.
- MacLennan, D. & Williams, R. (1990) Affordable housing in Britain and the United States. York: Joseph Rowntree Foundation.
- Muhwezi ,L., Acai, J. and Otim, G. (2014) “An Assessment of the Factors Causing Delays on Building Construction Projects in Uganda” . *International Journal of Construction Engineering and Management* . 3(1): 13-23 DOI: 10.5923/j.ijcem.20140301.02 .

- Ndubueze, Okechukwu J. (2009) Urban Housing Affordability and Housing Policy Dilemmas in Nigeria. A thesis submitted to the University of Birmingham for the degree of Doctor Of Philosophy Centre for Urban and Regional Studies. School of Public Policy. The University of Birmingham.
- Ndukwe, O.U. (2001) Case and Commentaries on Land Use Act 1978. Calabar: University of Calabar Press.
- Odum, C. O. and Ibem, E.O.(2011) "Securing urban land for housing among low-income earners in sub-Sahara Africa: Case study of workers' cooperative society, Enugu, Nigeria. Human Geography". *Journal of Studies & Research in Human Geography*, 5.1, 61-75
- Okonkwo, C.M.(1986) Structural and Operations of a Cooperative Core Housing', Paper presented in a seminar on Cooperative Core Housing: Methodology for Provision of Houses for Low and Middle income Groups, Organized by Anambra State Housing Corporation and the State Ministry of Works and Transport held in Enugu, 11th-12th September 2010 .
- Oloyede, S.A, Ajibola, M.O & Oni, A.O. (2007) "Informal Land Delivery System in Lagos State, Nigeria", *Journal of Land Use and Development Studies* 3 (1) 139-145
- Omirin, M.M. (2002) Issues in Land Accessibility in Nigeria, *Proceedings of a National Workshop on Land Management and Property Tax Reform in Nigeria*, Department of Estate Management, University of Lagos, Akoka, Lagos, Nigeria.
- Olujimi, J.A. and Iyanda, A.(2013) Physical Planning Implications of Access to Residential Land and Legal Security of Tenure in Lagos Metropolis, Nigeria. *FIG Working Week 2013 Environment for Sustainability Abuja, Nigeria*, 6 – 10 May 2013. TS04B - Planning and Development - 6438
- Omirin, M.M. (2002) Issues on land accessibility in Nigeria *Proceedings of the National Conference on Land Management and Taxation, University of Lagos, Lagos*, 16th & 17th July, pp18-27.
- Omirin, M. M. (2003) Issues in land Accessibility in Nigeria. In M. M. Omirin, T. G. Nubi, & S. A. Fawehinmi, Land Management & Property Tax Reform in Nigeria. *Proceedings of a National Workshop Organized by the Department of Estate Management, University of Lagos, Lagos, Nigeria* (pp. 49 - 70). Lagos: The Department of Estate Management, University of Lagos.
- Omotola, J.A. (1988) Law and Land Rights: Whither Nigeria? Lagos: University of Lagos Press.
- Oni, A.O. (2011) "Harnessing real estate investment through proper tenant selection in Nigeria", *Property Management*, Vol. 29 Iss. 4 pp. 383 – 397
- Opoko Akunnaya Pearl and Ibem Eziyi Offia (2013) Housing procurement in informal settlements: a case study of Ayobo, Lagos, Nigeria In: Laryea, S. and Agyepong, S. (Eds) *Procs 5th West Africa Built Environment Research (WABER) Conference*, 12-14 August 2013, Accra, Ghana, 603-618. 603
- Owei, O. (2007) 'Distortions of the Urban Land Markets in Nigerian Cities and the Implications for Urban growth patterns; the case of Abuja and Port Harcourt', paper presented at the Fourth Urban Research Symposium, viewed 22nd June 2008, [www.Worldbank.org](http://www.Worldbank.org)
- Quigley, J. & Raphael, S. (2004) "Is housing unaffordable? Why isn't it more affordable". *Journal of Economic Perspectives*, 18 (1): 191-214
- Sambasivan, M., and Soon, Y. W. (2007) "Causes and effects of delays in Malaysian construction industry." *Int. J. Project Manage.*, 25(5), 517–526.
- Statistics Solutions. (2013) One Sample T-Test [WWW Document]. Retrieved from <http://www.statisticssolutions.com/academic-solutions/resources/directory-of-statistical-analyses/one-sample-t-test/>

- Stone, M. E. (1993) *Shelter poverty: New ideas on housing affordability*. Philadelphia: Temple University Press.
- Stone, M. E. (2006) "What is housing affordability? The case for the residual income approach". *Housing Policy Debate*, 17 (1).
- Tipple, G.(1994). "The Need for New Urban Housing in Sub-Saharan Africa: Problem or Opportunity". *African Affairs*, Vol. 93, No. 373, pp. 587- 608.<http://www.jstor.org/stable/723668>.
- Udechukwu, C.(2008) "Obstacle to Individual Homeownership in Nigeria". *International Journal of Housing Markets and Analysis*, Vol.1 Iss:2, pp. 182-194
- Uluocha, N. (2007) The Role of GIS in improving land accessibility for urban housing delivery. In T.O.Nubi, M.M. Omirin and A.S. Afolayan; *Private Sector Driven Housing Delivery: Issues, Challenges and Prospects*. Department of Estate Management, University of Lagos, Lagos. ISBN 978-48753-0-1.
- UNDP (1997) *Human Development Report*. New York Oxford Oxford University Press Inc.
- UN-HABITAT (2008) Secure Land Rights for All. GLTN contributes to the implementation of pro poor land policies to achieve secure land rights for all. [www.gltm.net](http://www.gltm.net)
- UN-HABITAT (2003) *Handbook on best practices, security of tenure and access to land*. United Nations
- Wakely, P. (2014) Urban public housing strategies in developing countries: whence and whither paradigms, policies, programmes and projects. *DPU60 Working paper Series: Reflections*, NO.163/60. The Bartlett Development Planning Unit.