www.degruyter.com/view/j/remav

sciendo

LAND TITLING PATRONAGE IN CITIES OF DEVELOPING COUNTRIES: A SITUATION ANALYSIS OF AKURE, NIGERIA

Victor Olutope Ige
Department of Estate Management
Federal University of Technology Akure
e-mail: voige@futa.edu.ng

Rasidat Adejoke Oladapo
Department of Estate Management
Federal University of Technology Akure
e-mail: oladapojoke@yahoo.com

Michael Adedayo Adebayo
Department of Estate Management
Federal University of Technology Akure
e-mail: maadebayo@futa.edu.ng

Abstract

The increasing land-use intensity in developing-country cities necessitates land markets supported by active land titling. The study of land titling patronage is critical in a developing country like Nigeria, where the state of development necessitates determining who has rights to lands, for what purposes, and for how long on the available relatively scarce expanse of land. Data for the study was obtained from the Ondo State Ministry of Lands and Housing and the household heads of the purposive selected private layouts/estates within the study area. Data were analyzed using both the Mann-Kendall test and Sen's slope estimates as well as discriminant function analysis. The findings revealed a monotonously decreasing trend in the demand for titling in the study area which was statistically significant at 0.01 in decreasing order from 2009 to 2018. Further analysis showed that the education level of the head of the household as well as propensity to obtain loan/ engage in the subsequent transactions were the most important determinant as to whether a landowner would title land or not. The study will be useful for public enlightenment, policy formulation, policy implementation, professionals and scholars, as well as in academic debates.

Key words: *cities, developing countries, land, titling patronage, Akure metropolis*.

JEL Classification: *Q15*.

Citation: Ige, V. O., Oladapo, R.A., & Adebayo, M.A. (2022). Land titling patronage in the cities of developing countries: a situation analysis of Akure, Nigeria. *Real Estate Management and Valuation, 30*(1), 23-33.

DOI: https://doi.org/10.2478/remav-2022-0003

1. Introduction

The formalization or legalization of the rights of beneficiaries over the lands they till and/ or occupy to secure their property rights has been described as land titling (Talabis, 2017). Land titling as used in this study is, therefore, the official recording of the land rights to provide reliable documentary

evidence such as the Certificate of Occupancy, Governor's consent and Deeds of Conveyance (where applicable) of the title granted. The discussion and research into effective land titling are a result of the need to meet the challenges of competing favorably in an increasingly globalized world. Likewise, if target 1.4 of Goal 1 of the Sustainable Development Goals (SDGs) is to be achieved by 2030, land titling may be a step in the right direction. By target 1.4 of the goal 1 of SDGs, it is expected that, by 2030, all men and women, in particular, the poor and the vulnerable, will have equal rights to economic resources, as well as ownership and control over land and other forms of property, inheritance and natural resources.

According to De Soto (2002) cited in Rikke (2013), without land titling, land and other forms of assets on land are dead capital as, globally, they will be financially and commercially invisible. However, about 75% of the world's people to land relationships are not documented and are outside the formal land administration purview (Lemmen et al., 2015). In the same vein, less than fifteen per cent of the land on the African continent has been titled, with merely one per cent of land in Saharan Africa having been titled (Tibaijuka, 2004 cited in Nwuba & Nuhu, 2018). In the context of Nigeria, the level of land titling compliance is still low (Federal Ministry of Housing and Urban Development, 2006).

In addition, the demand for land titling in developing countries cannot be traced to any identifiable pattern. For instance, in some Sub-Saharan Africa cities like Ibadan, Kaduna, Kano, Benin and Enugu in Nigeria, Gabarone in Botswana, Kampala in Uganda, Eldoret in Kenya, Lusaka in Zambia and Maseru in Lesotho, 50 to 70% of land transactions are informally done with little or no demand for titling (Rakodi & Leduka, 2004). In consonance with this, the United Nations Habitat Report(2005), Banerjee and Dufloo (2007), Fort (2008) observed that millions of landowners residing in urban dwellings of the developing countries are without formal titles to the plots of land they occupy.

The situation in Nigerian cities is that land transactions take place outside the officially recognized systems of land titling (Ukaejiofor, 2009; Eleh, 2009; Atilola, 2010). In the Akure metropolis context, land informally acquired often has no official title or no official approval (Bello, 2006), hence the absence of information about their investment potential. This is probably due to the informal land ownership system that operates side by side with formal land ownership which titling is more associated with. The trend in land titling is, therefore, more pronounced in formal than informal land ownership. Against this backdrop, this study aims to consider the trend in land titling as well as the determinants of land titling patronage in the Akure metropolis of Ondo State, Nigeria which is the case study area. The study will no doubt be useful for public enlightenment, policy formulation, policy implementation, opinion leaders, professionals and scholars as well as in academic debates.

2. Literature review

Land comprises of all things attached permanently to the soil, whether above or below the ground (Smith et al., 2007). A titling land parcel is therefore finite in extent and permanent in nature. The rights, owners and usage may change, but the land remains forever, despite a series of subdivisions, merging adjoining parcels into larger ones, the particular land space remains unaffected. Aland title is therefore vital, as it guarantees ownership and transaction on land, and the information on the records is guaranteed by the Government to prevent fraudulent practices, thereby, protecting the holders.

The importance placed on land titling in both developed and developing nations can be observed in the billions of dollars being spent both by developing country governments and foreign aid donors each year on land titling offered. In contrast, studies have shown that they are rarely patronized by the targeted urban residence (Durand-Lasserve, 1997; Deininger & Binswanger, 1999; Payne, 2002). In the Akure area of Ondo State, Nigeria for instance, the sporadic methods of land titling embarked upon have witnessed little patronage.

Consistent with this, Farvacqueand Mcauslan (1992) observed that only about 10 to 20 per cent of transactions in African countries are registered. Similarly, the United Nations Centre for Human Settlements (HABITAT) (2003) estimates that there is no documentary title evidence for up to 90% of parcels in developing countries, with less than 1% of Sub-Saharan Africa covered by various types of land rights. This means that demand for land titling in most developing countries, and especially Sub-Saharan Africa, had been very low.

Furthermore, Ukaejiofor (2007) studied the impact of customary landholding on emerging land markets in Enugu. A questionnaire survey of heads of customary landowning families revealed that none of the customary landowners had sought any form of permission from the government before

embarking on the sale of their land, because of their belief that it was not the purview of government to intervene on customary land. Data from the study also showed that profits from land sales are not taxed by the government, since the formal administrative bodies do not usually get involved in private land transactions and are almost always unaware of them.

Also, a study carried out in Accra, Ghana by Awuah and Hammond (2013) on the relevance of land titling and the level of compliance established that 35 per cent of the respondents had complied with the title formalization requirement while 65 per cent had no formal titles and were not in the process of formalizing titles to their properties. The large numbers of respondents appear to support the view that title formalization is low in Ghana. In the same vein, a study by Uwem and Imoh (2014), aimed at assessing the level of compliance with land titling to determine the extent of securing landed properties in Akwa Ibom, Nigeria.

Data on Certificates of Occupancy issued to applicants were obtained from the Akwa Ibom State Ministry of Lands. A comparative analysis of the data amongst the three senatorial districts in the State was done with the one-way Analysis of Variance (one way ANOVA). It was revealed that, out of the 33,100 parcels of land that were surveyed between 2000 and 2009, only 1,933 parcels representing six per cent were completely titled. The ANOVA result revealed a landmark variation in the distribution of these title documents across the three Senatorial Districts in the State.

Additionally appraised the process involved in converting the existing Right of Occupancy and the average time involved in the process in Kaduna, Nigeria. A stratified random sampling method was adopted to obtain information from the respondents. The descriptive method was used to analyze the collected data. It was discovered that 90% of the respondents had never sold any of their properties and, as a result, had no prior knowledge of the process involved in subsequent land transactions. Five of the respondents who claimed to have sold their interest said they never obtained the governor's consent before selling their rights.

Kuma (2016) investigated the factors responsible for the choice of households' access to land through informal channels. Data was obtained through a questionnaire among 362 land owners and analyzed using descriptive statistics and factor analysis techniques. The results showed that the predominant proof of ownership of land (title) by the sampled land owners was by informal sales agreements executed between the initial land owners and the buyers, and this accounted for 53.6% of land transactions. However, 46.4% of the land owners hold statutory right of occupancy either through direct allocation from the government or through title registration. Evidence showed that 96.6 percent of respondents obtained land from sources other than the government, while 9.4 percent were granted rights by the government based on whether their access to land was formal or informal. By and large, it appears that not much progress has been made in terms of the number of titles registered in Nigeria. Though there were no official figures as to the extent of the progress made so far on land titling in Nigeria, Ukaejiofor (2007) revealed that less than 3% of the total land area can be tied to a well-documented record. This is consistent with the assertion of Atilola (2010) that, 133 years after the establishment of the land title registration law of 1883, ownership rights are still taking place informally. The slow pace of land titling in Nigeria might not be independent of the hiccups in the implementation process.

3. Data and Methods

3.1.1. Profile of the Study Area

Akure is a traditional Nigerian city like other traditional Yoruba towns located within Ondo State in the South-Western part of Nigeria. It is geographically located on latitude 70 15' North of the Equator and 50 15' East of the Greenwich Meridian, within the tropical rainforest region of Nigeria. It became the capital city of Ondo State and a Local Government headquarters in 1976. Despite being a medium-sized urban area, it is increasing at a rapid rate. The total landmass was approximately 16 km^2 in 1980, while the spatial expansion stretched to about 30 km^2 in 2000. The total population of Akure grew from 38,852 in 1952 to 71,106 in 1963. In 1980, its population was estimated to be 112,850 and 157,947 in 1990. The population of Akure according to the 1991 national population census was 239,124 and 353,211 in 2006 respectively, while it was projected to be 453,731 in 2014 using a growth rate of 3.18% (Emmanuel & Fasakin, 2017).

The increasing population in Akure, being the state capital, has boosted the land market due to the high demand for land. This is not without its accompanying complications. Despite the complexity of

land transactions, the land market in Akure remains very active. A considerable number of land titling has taken place in Akure and other towns within Ondo State over the past decade. A significant amount of land transactions are in progress in the formal land market, as well as many more informal transactions. Given the high spate of land development in Akure, there is massive expansion towards all the urban-fringe areas of the city. While lands in some of the fringe areas are predominantly untitled, it's usually difficult for the state land institution to give readily accessible data on such parcels. Hence, getting adequate information on key aspects of urban land transactions may be difficult.

3.1.2. Methodology

The trend in the demand for land titling in Akure from 2009 to 2018 was analyzed using the Mann-Kendall Test and Sen's slope estimates (MAKESENS) for the trend of annual data. The Excel template (MAKESENS) was developed for detecting and estimating trends in the time series of annual values. The presence of a monotonic increasing or decreasing trend is confirmed with the nonparametric Mann-Kendall test and the slope of a linear trend is estimated with the nonparametric Sen's method in MAKESENS.

The study used a 10 year database (2009–2018) of the land titling records of Akure obtained from the Ondo State Ministry of Lands and Housing in Nigeria to analyze the trend in the titling culture of the area. The Mann-Kendall trend test is a nonparametric statistical method used for testing the presence of the monotonic increasing or decreasing trends and change points as well as the significance level of annual values. Sen's slope estimates indicate the magnitude of the significant trend found in the Man Kendall test. The Mann-Kendall test requires at least 4 values, and calculation of the confidence intervals for the Sen's slope estimate requires at least 10 values in a time series (Timo et al., 2002). However, the test statistic S is only displayed, if the number of time series (n) in the calculation is 9 or less. The Mann-Kendall test is appropriate when the data values xi of a time series can be expected to obey the model in Equation 1.

$$x_i = ft_i + \varepsilon_i \quad (1)$$

where:

ft_i - Continuous monotonic increasing or decreasing function of time,

ε_i - Residuals.

According to Timo et al. (2002), the tested significance levels α in Mann-Kendall Test and Sen's slope are 0.001, 0.01, 0.05 and 0.1. A statistically significant trend is determined using the Z value of the Mann-Kendall test. A positive value of Z indicates an upward trend, while a negative value of Z specifies a downward trend.

The estimation of the change per year (true slope) of an existing trend is determined through Sen's nonparametric method. Sen's method is used where the trend is expected to be linear (Timo al., 2002). In this scenario, f(t) in Equation (2) will be:

$$f(t) = Qt + B \quad (2)$$

where:

Q - The slope, and

B - A constant.

Additionally, Discriminant Function Analysis (DA) was employed to examine the factors that determined landowner's patronage of land titling in the study area. Data for this was obtained from the household heads of the selected private layouts/estates in Akure including; Ademola-Adesida estate, Alaba layout, Ifelere estate, Ire-Akari estate, Obele estate, Oke-Ogba community, Osolo-Abibiri estate and Wesco estate. These residential layouts/estates are owned by the informal private sector and inhabited by residents of different income status while the majority comprises of the lower-income strata. Given the status of the residents of the selected areas, they engaged in self-help housing, which made them take the risk of buying untitled land from the informal market subjugated by communal ownership (Olamiju, 2014).

There were 8369 household heads in the selected area as obtained by a study carried out by Enisan (2018). The sampling frame of the household heads was further reduced to 2026 by the Yamane formula as explained by Bartlett et al. (2001) and Israel (2012).

$$n = \frac{N}{1+ N(e)^2} \quad (3)$$

where:
n - The sample size,
N - The population size,
e - The level of precision.

Therefore, out of the 2026 questionnaires distributed to household heads in the selected layouts/estates, only 1075 were retrieved. The 1075 distributed questionnaires were segmented into 309 titled household heads and 706 untitled household heads.

The DA, as used in the analysis, performs the same task as multiple linear regression by predicting an outcome. DA is used when the dependent is categorical (dichotomous) with the predictor independent variables at interval level or dummy variables. For this study, the dichotomous dependent variables are "titled land" and "untitled land". The independent variables include: the age of the household head, education level of the household head, type of job, size of the plot, propensity to obtain loan/ engage in the subsequent transaction, as well as income of the household head.

The form of the DA equation or function for this study is:

$$D = v_i X_I + v_2 X_2 + v_3 X_3 = \cdots v_i X_I + a \quad (4)$$

where:
D - Discriminate function,
v - The discriminant coefficient or weight for that variable (the v's are unstandardized discriminant coefficients analogous to the b's in the regression equation),
X - Respondent's score for that variable,
a - a constant,
i - The number of predictor variables.

4. Empirical results

This section explains practice based on land titling patronage data obtained from the Department of Deemed Rights and Deeds Registry of the Ondo State Ministry of Land and Housing within the year under consideration. This analysis is defined by significant fluctuations in titling patronage over the study period.

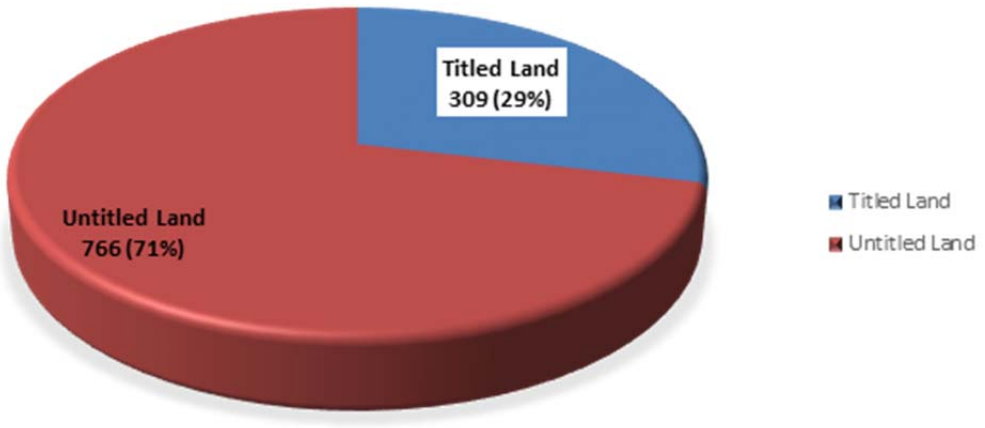
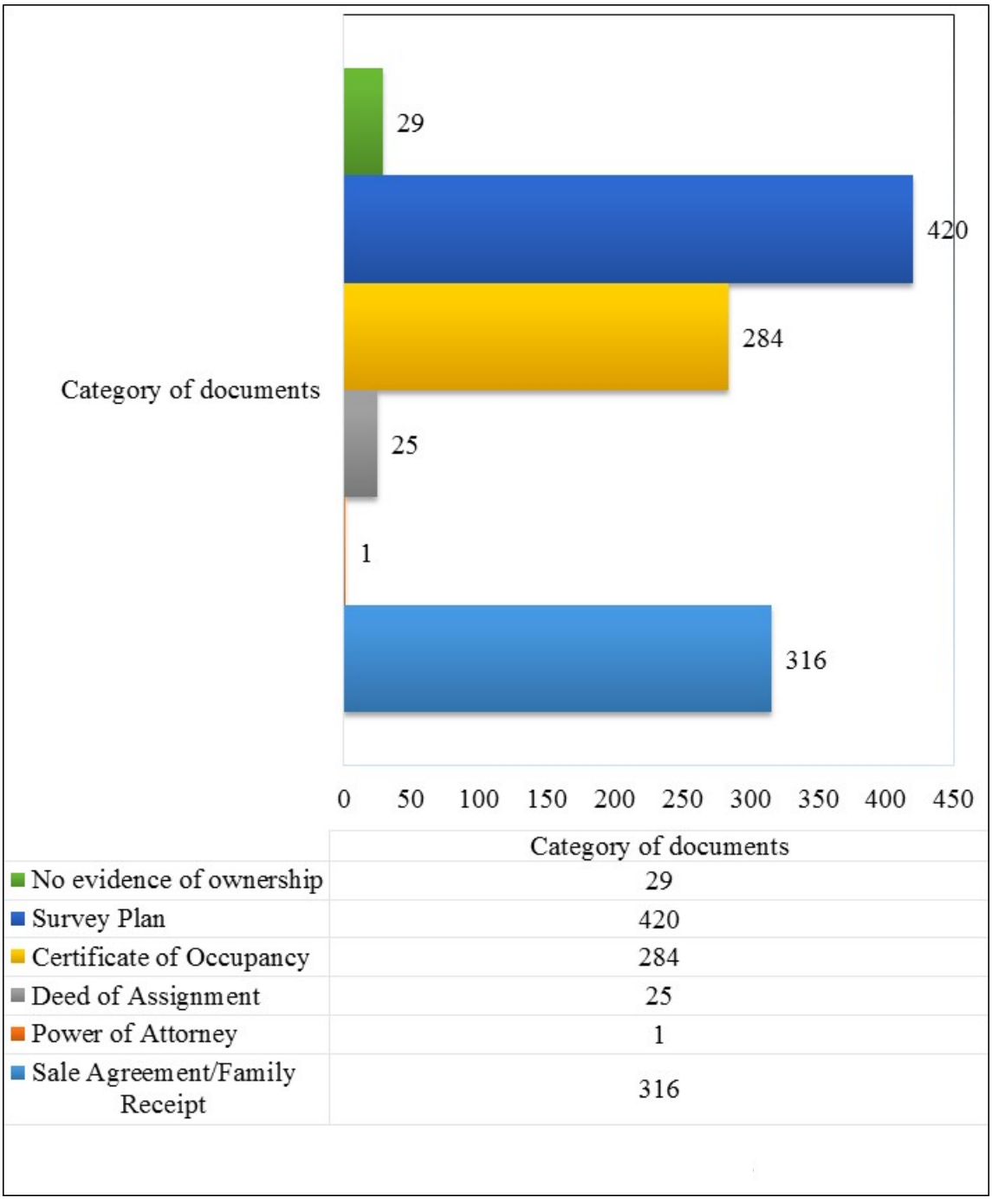


Fig. 1. Land titling status in the study area. *Source*: own study.

Figure 1 illustrates the land titling status of the study area. Only 309 out of the total 1075 household heads surveyed had their land titled. This figure represents only 29% of the total as shown in Figure 3.

Most of the household heads (71%) are without the recognized title to their land. The implication of this is that it may be difficult to establish the interest subsisting on such lands. Moreover, it may be difficult to explore the potentials of land titling including collateralization and land information management.



	Category of documents
No evidence of ownership	29
Survey Plan	420
Certificate of Occupancy	284
Deed of Assignment	25
Power of Attorney	1
Sale Agreement/Family Receipt	316

Fig. 2. Categories of document possessed by household heads. *Source: own* study.

Figure 2 revealed that, out of a total of 1705 household heads sampled for the categories of land document, 420 possessed a land survey as evidence of ownership, 316 had sales agreements while 284 had the certificate of occupancy (the officially recognized titled document). Only 25 household heads of the 309 who had titled their land were found to possessa deed of assignment, while only 1 respondent had power of attorney; the remaining 29 respondents had no evidence of ownership. On the whole, this indicates that respondents have one or more types of land title documents on the property, most likely because they are aware of likely land issues.

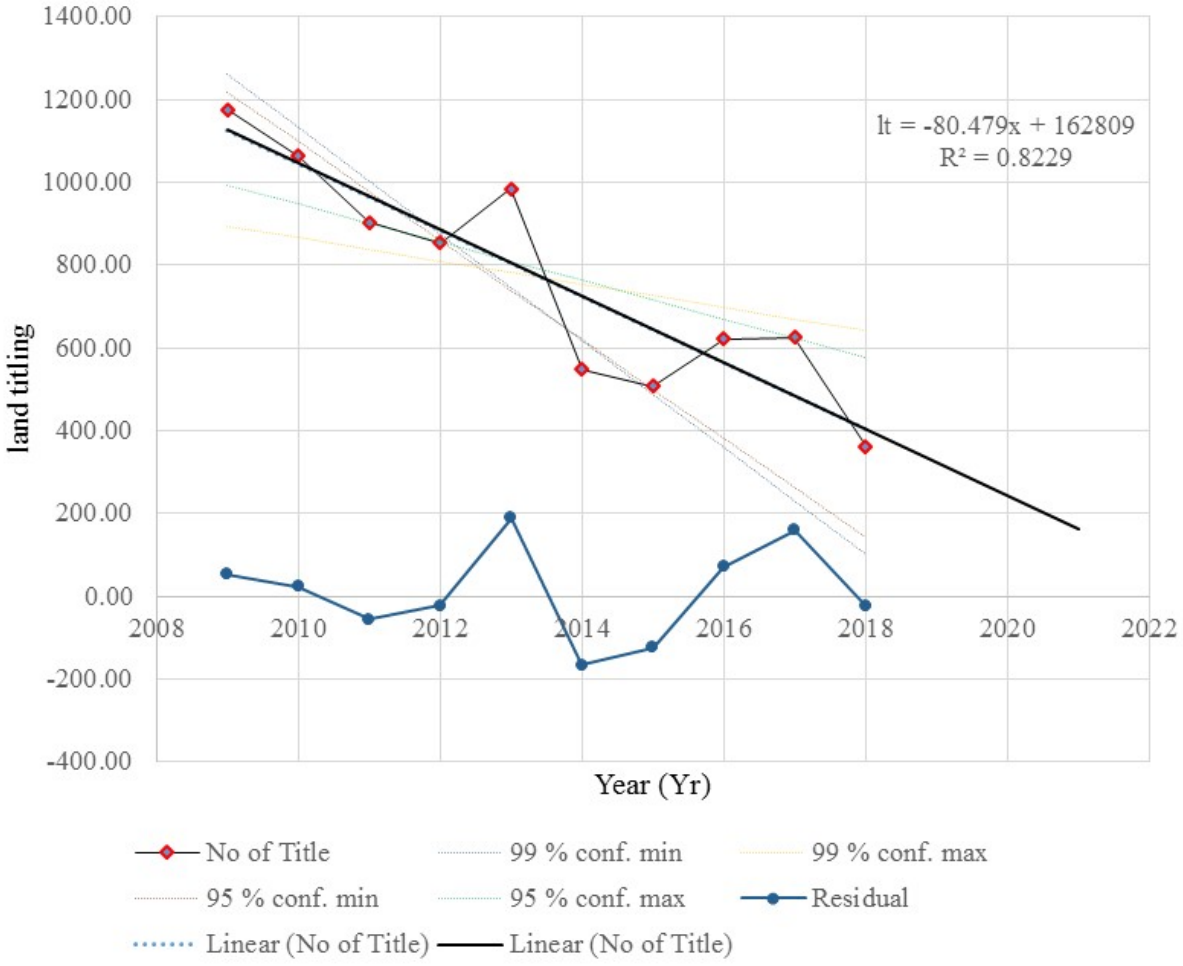


Fig. 3. Annual time series and trend statistics of land titling from 2009 to 2018 in Akure. *Source*: own study.

Figure 3, displays the original data points of the land titling compliance, the Sen's estimator for a linear trend, the lines for 99% and 95% confidence intervals and the residuals (land titling compliance data minus trend) in Akure from 2009 to 2018. Years 2009, 2010, 2011 and 2013 recorded the highest land titling compliance, with 2015 and 2018 recording the lowest titling compliance. The number of titling compliance dropped drastically, being the yearly percentage variation of 15.13 per cent in 2010, 5.43 per cent in 2011, 44.31 per cent in 2014, 7.48 per cent in 2015 and 42.17 per cent in 2018. On the other hand, there was a yearly percentage increase of 15.22%, 22.49% and 0.81% in 2012, 2013 and 2017 respectively.

The value of $R^2 = 0.8229$ indicates an excellent linear relationship between land titling compliance and years under consideration. It implies that the predictions based on the linear relationship, LTC = -80.479x + 162809, is reliable. Sen's estimator for the true slope of linear trend (change per year) was shown on the graph equation as -80. Corresponding lines of 99% and 95% confidence intervals for Sen's estimator give a high level of significance with narrow angles between the confidence lines. The slope value of -80 with a coefficient of determination $R^2 = 0.8229$ is an indication of a negative and highly fluctuating trend in annual demand for land titling for the period considered. The slope appears to diminish at the end which also can be seen from the residuals that are not random. The residual pattern is, therefore, an indication of inter-annual changeability in titling compliance in the study area over the 10 years. The graphical equation of the trend line could further be used to forecast likely trend in the next three (3) years if land titling culture is not improved in the study area to confirm the present trend.

Table 1

Variables included in the Discriminant Function Analysis

Variables	Descriptions	Variable type	Expected sign
Dependent variables Titled Untitled	Household head with titled land Household head with untitled land	Dummy [1 = Yes; 0 = No]	-
Age	Age of household head	Continuous variables in years	+/-
Education	Education level of household head	Continuous [in school years]	+
Job	Type of job	Dummy [1 = Self-employed; 2 = Business; 3 = Civil servant; 4 = Farmer]	+
Plot	Size of plot	Continuous [in square meters]	+/-
Loan / subsequent transaction	Propensity to obtain loan/ engage in subsequent transaction	Dummy [1 = Yes; 0 = No]	+
Income	Income of household head	Continuous [in Naira (₦)]	+/-

Source: own study.

Table 2

Mann-Kendall trend test of Annual demand for land titling from 2009-2018

Time series Number	N	Test S	Test Z	Sig.	Sen's slope Q	B
1	10	-	-2.68	0.01	-82.00	1133.43

Source: own study.

The standardized Mann-Kendall's coefficient (Z) and Sen's slope (Q) (Z= -2.68, Q= -82.00) shown in Table 2 indicates a monotonously decreasing trend in the demand for titling in Akure which is statistically significant at 0.01 during the period considered. The implication of this finding is that land ownership information and transactions at the Deemed Rights and Deeds Registry will only be available on titled land, while untitled land information is conspicuously missing at that department. So no secondary data on the substantial volume of land in those neighborhoods that have untitled land. This, in turn, could make decision-makers, real estate professionals and other urban land market participants rely on questionable and incomplete data to form their opinions. Fort (2008) had previously observed that the majority of the population in developing counties lacks formal proof of ownership for the assets they hold.

Table 3

Eigenvalue

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	0.832[a]	100.0	100.0	0.674

a. First 1 canonical discriminant functions were used in the analysis.

Source: own study.

Table 3, provides information on each of the discriminate functions (equations) produced. Since only two groups namely 'titled' and 'untitled' is used, only one function is therefore presented. The canonical correlation is the multiple correlations between the predictors and the discriminant function. A canonical correlation of 0.674 suggests the model explains 45.40% of the variation in the grouping variable, i.e. whether a respondent titled or not.

Wilks' lambda specifies the significance of the discriminant function. Table 4 indicates a highly significant function ($p < .000$) and provides the proportion of total variability not explained, i.e. it is the inverse of the squared canonical correlation. So we have 54.6 % unexplained.

Table 4

Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	Df	Sig.
1	0.546	647.682	6	0.000

Source: own study.

Table 5

The standardized canonical discriminant function coefficients

	Function
	1
Age of household head	-0.051
Education level of household head	0.883
Type of job	-0.261
Size of plot	0.015
Propensity to obtain loan/ engage in subsequent transaction	0.626
Income of household head	-0.023

Source: own study.

Table 5, presents an index of the importance of each predictor. The sign indicates the direction of the relationship. The education level of household head (0.883) was the strongest predictor while propensity to obtain loan/ engage in a subsequent transaction (0.626) was next in importance as a predictor followed by the type of job (-0.261), though with a negative sign. Education level of household head and propensity to obtain loan/ engage in a subsequent transaction are the two variables with large coefficients that stand out as those that strongly predict the likelihood of fitting into the titled or untitled group. Age of household head, size of the plot, and income of household head scores were less effective as predictors.

Table 6

Canonical Discriminant Function Coefficients

	Function
	1
Age of household head	-0.005
Education level of household head	2.086
Type of job	-0.430
Size of Plot	0.000
Propensity to obtain loan/ engage in subsequent transaction	1.512
Income of household head	0.000
(Constant)	-7.265
Unstandardized coefficients	

Source: own study.

Table 6, shows the canonical discriminant function coefficient. These unstandardized coefficients (b) are used to create the discriminant function (equation). Therefore, from the Table we have the discriminant equation as follows:

$$D = (-.005XAge\ of\ household\ head) + (2.086XEducation\ level\ of\ household\ head) + (-.430XType\ of\ job) + (0.000XSize\ of\ Plot) + (1.512XPropensity\ to\ obtain\ loan/\ engage\ in\ subsequent\ transaction) + (0.000XIncome\ of\ household\ head) - 7.265$$

The discriminant function coefficients indicate the partial contribution of each variable to the discriminate function controlling for all other variables in the equation. They therefore show each independent variable's unique contribution to the discriminate function and by doing so provide information on the relative importance of each variable. For instance, the education level of the head

of the household was the most important, with abeta coefficient of 2.086 (about 209% contribution). These findings imply that education level is the most important determinant as to whether a landowner would title land or not.

5. Discussion and conclusions

The study confirmed a monotonously decreasing trend in the demand for titling in the study area. This is a corroboration of the previous studies which claimedthat the majority of the population in developing counties to lack formal proof of ownership for the assets they hold. The abysmal trend implies that suitable records that could assist the government inkeeping stock of land holdings may not be sufficiently available. Therefore, exercising effective land regulation and administration by the government may not be possible. Also, land market participants may not be able to harness most of the benefits derivable from land. This is seeing as how land must be transformed into a capital asset through effective land titling to create secure ownership and bestow property rights on the owner.

Additionally, the declining state of titling in the study area also means that private needs for land records to facilitate effective land transfers may be difficult, as official records may not capture the majority of land transactions in the state. The low participation in land titling may be a major barrier to financial inclusion and economic development for approximately two-thirds of the world's population. Without land titling, individuals struggle to obtain access to credit and public services, while governments are limited in their ability to collect taxes, enforce property rights, and plan for economic expansion and innovation. In addition, the low level of land titling also means that land market participants may not get adequate information for their transaction, anda dearth of information may result in an inefficient land market.

In summary, the study found that the education level of the head of the household as well as propensity to obtain a loan/engage in the subsequent transaction,characterized by beta coefficients of 2.086 and 1.152 (about 209%and 151% contribution) respectively,were the most important determinants as to whether a landowner would title land or not. Given the monotonously decreasing trend in the demand for titling, sensitization to raise public awareness about land titling practices is essential in achieving its successful implementation. This will create an avenue through which urban residents would be educated on the potential benefits of land titling.

The dwindling demand for certificates of land ownership (titling) necessitates that the Nigerian government intensify titling culture, as such a policy intervention is likely to have a variety of long-term benefits, particularly in the urban land market. Effective land titling, for example, will undoubtedly provide statistical data for policy and strategy. Furthermore, improved land titling in Nigeria will ensure the protection of land rights, which will serve as a source of personal wealth and opportunities for economic independence and growth.

6. References

ATILOLAO. (2010) *Land Administration Reform in Nigerian: Issues and Prospects*, FIG Congress, Sydney, Australia, 11-16 April.

AWUAHK, K.G.B., & Hammond, F.N. (2013) Prognosis of Land Title Formalization in Urban Ghana: The Myth and Reality of Awareness and Relevance. *African Studies Quarterly, 14*(1 and 2), 55-75.

Banerjee, A. V., & Duflo, E. (2007). The Economic Lives of the Poor. *The Journal of Economic Perspectives, 21*(1), 141–167. https://doi.org/10.1257/jep.21.1.141 PMID:19212450

Bello, M. (2006). *Real Estate Values, Valuation Practice and Urban Land Market under the Nigeria Land Law*. A paper presented at the Africa Region CASLE Conference, Bagamoyo, Tanzania, 14-17 March.

Durand-Lasserve, A. (1997). Regularizing Land Markets. *Habitat Debate, 3*(2), 11–12.

Deininger, K. & Binswanger, H. (1999). The Evolution of the World Bank's Land Policy: Principles, Experience, and Future Challenges. *The World Bank Research Observer, 14*(2), 247–276. https://doi.org/10.1093/wbro/14.2.247

Farvacque, C., & Mcauslan, P. (1992). *Reforming Urban Land Policies and Institutions in Developing Countries*. Urban Management Program. The World Bank, Washington, DC. https://doi.org/10.1596/0-8213-2092-0

Fort, R. (2008). The homogenization effect of land titling on investment incentives: Evidence from Peru. *NJAS Wageningen Journal of Life Sciences, 55*(4), 325–343. https://doi.org/10.1016/S1573-5214(08)80024-3

Emmanuel, G., & Fasakin, J. O. (2017). Socio-economic Assessment of Inhabitants of Residential Densities in Akure, Nigeria. *Civil Engineering and Architecture, 5*(6), 222–229. https://doi.org/10.13189/cea.2017.050604

Kuma, S. (2016). Analysis of Urban Households' preference for informal Access to Residential land in Minna, Nigeria. *Ghana Journal of Development Study, 13*(2), 84–99. https://doi.org/10.4314/gjds.v13i2.5

Lemmen, Ch., Bennett, R., McLaren, R., Enemark, S. (2015). *A New Era in Land Administration Emerges*. *GIM International,* (January), 22–25. http://www.gim-international.com

Nwuba, C., & Nuhu, S. (2018). Challenges to Land Registration in Kaduna State, Nigeria. *Journal of African Real Estate Research, 3*(1), 141–172. https://doi.org/10.15641/jarer.v1i1.566

Olamiju, I. O. (2014). *Micro management issues in approved private residential layouts in Akure, Ondo State, Nigeria*. Ph.D Thesis, Department of Urban and Regional Planning, Federal University of Technology, Akure.

Payne, G. (ed.) (2002). Land Rights and Innovation: Improving Tenure Security for Urban Poor. ITDG publishing. https://doi.org/10.3362/9781780441207

Rakodi, C., & Leduka, C. (2004). Informal Land Delivery Processes and Access to Land for the Poor: A Comparative Study of Six African Cities [International Development Department, School of Public Policy, Birmingham University, UK.]. *Policy Brief (Helsinki),* 6.

Rikke, B. (2013). *Biting the barefoot: Land titles and tenure security in the context of inequality*, DANISH Institute for International Studies Report, www.diis.dk

Smith, W., Williamson, I., Burns, A., Chung, K., Ha, N., & Quyen, H. X. (2007). The impact of land market processes on the poor in rural Vietnam. *Survey Review, 39*(303), 3–20. https://doi.org/10.1179/003962607X164952

Timo, S., Anu, M., Pia A., Tuija, R-A., & Amnell, T. (2002). *Detecting trends of annual values of atmospheric pollutants by the Mann-Kendall test and Sen's slope estimates-the Excel Template Application Makesens*, Helsinki, Finnish Meteorological Institute.

Ukaejiofor, C. (2007). *The Impact of Customary Landholding on Emerging Land Markets in Enugu, Nigeria*. Working Paper, Lincoln Institute of Land Policy, Cambridge, Massachusetts.

Ukaejiofor, C. (2009). *Land titling as Necessary Factors in the National Land Reform Performance*. Being a paper presented at the NIESV39th Annual Conference, Awka, 21st-26th April.

United Nations. (2005). *Habitat Report*. United Nations.

Uwem, I., & Imoh, J. (2014). Securing Land Title/Ownership Rights: A Survey of the level of Compliance with Land Registration in Akwa Ibom State, Nigeria. *Research on Humanities and Social Sciences, 4*(1), 69–79.