



EFFECTIVENESS OF e-LAND DOCUMENTS MANAGEMENT SYSTEM A CASE STUDY OF NIGIS AGENCY MINNA

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Abstract

Land is the core of a nation's development and it is essential to devise methods for improving its management. The effect of the pressure on land and other natural resources is that communities develop a need to own land exclusively. This facilitates the emergence of various types of rights to use and develop the land as more permanent holdings. E-land documentation as a tool used in digital maintenance and keeping of land records and helped to reduce the chance of corruption magnificently has been bedeviled with inherent challenges that impaired main focus. It is on this basis the study assess the significant impact of challenges associated with e-land documentation process in the Minna metropolis. The utilized simple random technique to sample 340 digitized title holders through closed ended questionnaires. The study utilized both descriptive and inferential method of analysis to analyzed the responses from the respondents. The result of descriptive analysis through relative important index (RII) revealed that Inadequate public education and enlightenment on new digital certification process, inadequate proper identification of parties to transactions and the lack of proper authentication of documents were identified as most importance challenges associated with e-land documentation process, the result inferential analysis through chi-square test revealed that digitized title holders were not significantly differed in their understanding and experience of challenges associated with e-land

documentation process. The study therefore recommends that the process should ensure proper education of public, simplicity and easiness in digital certification for clear identification of ownership.

Keywords: *e-land, title document. Processing, challenges*

Introduction

The most crucial part of e-land document management system is to represent land information in such a way that splitting, merging and querying updating and retrieving of land information become easier, and also collecting and digitizing land data should be cost effective (Zhou 2002). A document is recorded information or object which can be treated as a unit while document management is how an organization stores, manages and tracks its electronic documents (ISO, 2012). A document management system (DMS) therefore, is a system based on computer programs in the case of the management of digital documents used to track and store documents. It is usually also capable of keeping track of the different versions modified by different users.

A document management system could also be considered as the software that controls and organizes documents throughout an organization. It incorporates document and content capture, workflow, document repositories and output systems, and information retrieval systems. Also, the processes used to track, store and control documents (ISO, 2012). Beginning in the 1980s, a number of software sellers began to develop software system to manage paper-based documents. These systems dealt with paper documents, which included not only printed and published documents, but also photographs, prints, etc (Oboli, & Akpoyoware, 2010). Later developers began to write a second type of system which could manage electronic documents, i.e all those documents, or files, created on computers, and often stored on users' files.

Before the installation of the Niger State Geographic Information System (NIGIS), the management of paper-based documents in land transaction was manually done, file jackets were the only means of storing the documents through a system of tagging the documents onto the file jackets. The files were coded and numbered serially and put into shelves, kept in a room called the land registry. This system created a lot of challenges for land administrators in

tracking and subsequent transactions on the file documents. Therefore the study aims at assessing the challenges facing e-land documentation in Niger state.

Literature Review

A modern land administration system needs to be able to provide not just a platform to integrate all types of information about the functions of land (tenure, value, use and development), but also the relevant processes and activities (Williamson *et al.*, 2010). Christian (2010) see Document management as essential for the effective and productive functioning of public organizations. Records document the decisions and activities of governments and public institutions, and serve as a benchmark by which future activities and decisions are measured. They document fundamental rights and obligations, and differentiate the rule of law from the actions of arbitrary states. Without good document management there can be no rule of law and no accountability, public officials are forced to take decisions on an ad hoc basis without the benefit of an institutional memory, fraud cannot be proven, meaningful audits cannot be carried out, and government actions are not open to review.

More importantly, as Enemark *et al.* (2005) noted, a modern land administration system (particularly those in more developed countries) should “facilitate sustainable development the triple bottom line of economic, social and environmental sustainability through public participation and informed and accountable government decision making in relation to the built and natural environments”. The administration of land and property plays a vital role in any market economy. Therefore, governments will continue to play a central coordinating role in the modern land administration system, manifest as the cadastral component of the system, which accounts for the administrative, legal and fiscal processes of land and property.

Rajabifard *et al.*, (2006) observed that while such a coordinating role will likely be the domain of national governments, state and local governments will increasingly perform more operational functions. Additionally, developments in information and communication technologies (ICT) are rapidly changing the overall dynamics of land and property data demand and supply (echoing a general trend in spatial data use and consumption) such that industry and citizens are increasingly becoming both producers and consumers of this information, albeit to differing extents. This changing

dynamic will foster greater linkages between the land administration systems and the people it directly affects thereby ensuring that sustainable development objectives are delivered at all levels.

This widespread use of ICT is an important factor in considering the specifications of modern land administration systems for urban areas. ICT is facilitating the development of new land administration processes between government, industry and citizens. For example, a 2010 study conducted by the Economist Intelligence Unit (EIU) on the use of ICT for city management (Siemens Press Release, 2010) found that ICT has become a basic infrastructure of cities and its use not only facilitated new ways of addressing urban challenges but also nurtured an environment for government initiatives to be implemented. This is an important aspect for supporting land administration governance processes as it will improve interactions between government, private industry and citizens. Increased participation by citizens, fuelled by ICT developments, has also led to a change in their roles as purely data consumers to dual roles in production and consumption. Consequently, both industry and government are looking to increased engagement as part of modern land administration systems ((Ibraheem, 2008).

Citizen reliant initiatives abound, with Open Street Map a frequently cited example of how user generated content can produce an authoritative or quasi authoritative product. The EIU study also showed a strong trend in user-generated content that focused on urban applications. Citizens were increasingly consuming official datasets and mobile technologies to produce new applications that were relevant to their cities. In a similar vein, increased citizen participation is likely to improve the cycle of information between users, be it government, private industry or citizens. This is critical if land policies are to remain relevant (Bennett *et al.*, 2011).

The modern land administration system therefore needs to effectively engage and promote participation of government, industry and citizens, particularly in urban areas. It also needs to evolve with, and harness, developments in ICT to improve the efficiency of its processes. The concept of a 3DLPIS is effectively that of a multi level infrastructure that will enable all parties with an interest in land and property information to record, access, discover, share and manage information about RRRs that is not limited by parcel boundaries. By facilitating access, discovery, and sharing of land and property

information, this system will support the processes and broad governance objectives of modern land administration systems and provide the foundation for realizing a spatially enabled society (Enemark et al. 2005).

Isah (2014), on the "study of effective land administration as a tool for poverty reduction in kaduna" focuses on objectivity in mode of land ownership and how land titling affects its income earning potentials in the study area. Primary and secondary data were collected from the four (4) selected areas of the town namely; Romi new extension, Karnazon, Gorin gora and Ungwan-boro. The sampling technique adopted in the study for data analysis is simple random technique also known as descriptive analysis. The discover that about 74.30% of the respondents acquire their land through direct purchase, while only 41.72% of them uses the property to earn income by rent on building. It was also reveal that about 54.84% of the respondents could not access land due to high value attached to the land. The study also uncovers that land administration meant to be a source of poverty reduction could not be actualized due to prolong title processing, high cost of registration and ignorance on the part of land owners who do not realise the benefit of title registration. Aliyu (2015), on the study conducted on process of recertification of land title in Niger State Geographic Information System (NIGIS); through which the researcher examines the purpose, Procedure and significance of land title recertification to attractive long term investment. The study dwells on assessing the entire recertification process of NIGIS.

Akpen (2014), on effect of land administration on tenure security in Niger State, a study conducted to examine its impact in the state. The study adopted questionnaire and oral interview as the tools to collect data, the questionnaires were administered to the various property owners in the selected areas of Bosso, Dutse-Kura, Sauka-Kauta and Tunga in minna Niger State. The sampling technique for data analyses in the study is simple random sampling for effective and reliable findings. It was discovered in the study that majority of the land owners in the area access their land through direct purchase from individuals and traditional family heads.

Birmer and Okumo (2012) in finding out the challenges of land governance in Nigeria opined that poor Land Governance is the major challenge that impedes the goal of land registration. The empirical section of the study dwells on two cases of land registration and two cases of land acquisition in Ondo State using

a participatory mapping method called "Process Net-Map" to identify the actors and process involved. The study reveals that landowners incur very high cost in the process of land registration due to governance problem inherent in the current land administration institutions (which it described as bribery and elite capture). It further reveals that in line with the existing processes of land registration especially when land owners have access to intermediaries and can afford to pay for privately provided land services in cash, obtaining land title costs more than 10% of the subject land value.

Morenikeji, Ayodele and Owoleye (2009), on their study title Land Administration Problems in Nigeria, the study cover Oyo and Niger states of Nigeria. Using descriptive methods identified poor record keeping as one of the major problems of land administration in Niger State, which has inadvertently caused multiple issuance of certificate of occupancy (C of O) on states land. Therefore, the implication of poor record keeping as shown in the study has made the existing practices of land administration a mockery of the ideals of the land use act causing uncoordinated and cumbersome land administration processes.

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Research Methodology

The population of this study represents the digitized land title holders. simple random sampling technique was used in the selection of the target population. The choice of this techniques is based on fact that every member of the population has an equal opportunity of been selected. Therefore the study

selected available digitized title holders in Minna. population is made up of approximately 5000 members of public.

Sample size

The population for this study is determined using a sample size model. The number of questionnaires to be administered and the sample size for the study population was determined using Yamma's formular model expressed as follows:

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

Where;

n= Sample size

N= Sample population

e= confidence level (0.05)

based on the population of digitized land owners in Minna at approximate 5000, sample size to be administered is 370. The number of retrieved questionnaires 340 which constituted about 92% of total samples were analysed and 30 questionnaires were not returned which constituted about 8%

Finding and Discussion

The result of demographic information of respondents presented in table 4.1 showed that 91.8% majority of the sampled digitized land owners were male, 92.4% majority of digitized land owners were married, 68.8% majority digitized land owners comprised of civil servant who acquired their land through purchase. 81.5% majority of digitized land owners had first degree/Higher national diploma in different field of study and finally 84% majority of digitized land owners received average monthly.

Table 4.1 Demographic Information of Digitized Land Owners

Demographic Information	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Gender	Male	312	91.8	91.8
	Female	28	8.2	100.0
	Total	340	100.0	100.0

Marital status	Single	2	.6	.6	.6
	Married	314	92.4	92.4	92.9
	Widow	20	5.9	5.9	98.8
	Widower	4	1.2	1.2	100.0
	Total	340	100.0	100.0	
Occupation	civil servant	234	68.8	68.8	68.8
	private servant	85	25.0	25.0	93.8
	self employed	21	6.2	6.2	100.0
	Total	340	100.0	100.0	
Education	ND/NCE	36	10.6	10.6	10.6
	HND/Degree	277	81.5	81.5	92.1
	PGD	15	4.4	4.4	96.5
	Master Degree	9	2.6	2.6	99.1
	PhD	3	.9	.9	100.0
	Total	340	100.0	100.0	
monthly income	#19,000-49,500	6	1.8	1.8	1.8
	#50,00–100,000	48	14.1	14.1	15.9
	above #100,000	286	84.1	84.1	100.0
	Total	340	100.0	100.0	

Source: Field survey, 2019

The mode of land acquisition by digitized land owners is presented in figure 4.1. the result revealed that 81.47% of digitized land owners purchased their land, 14.12% of digitized land owners inherited, 2.647% and 1.75% of digitized land owners acquired their land by gift and first settler respectively. this result indicates majority of digitized land owners acquired their land through purchase and they comprised bulk e-land documents.

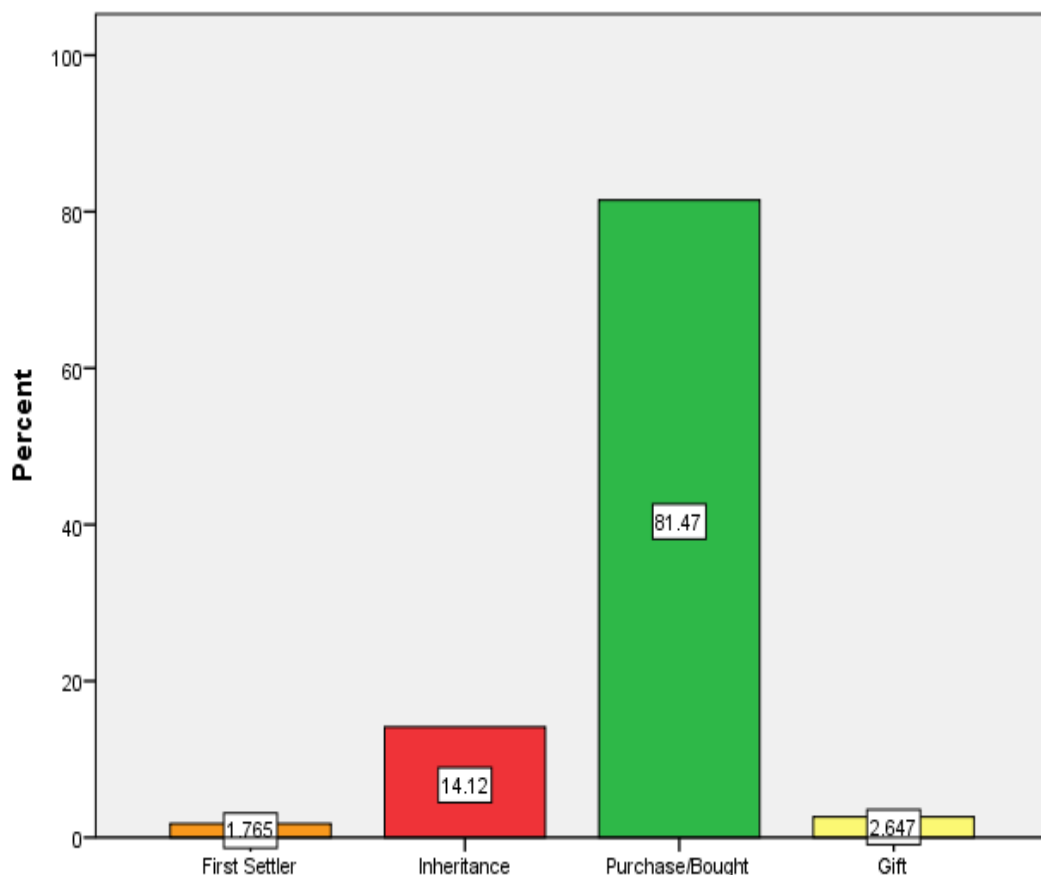


Figure 4.1 Mode of Acquisition

Source: Field Survey, 2019

The extent of reduction in the problem associated with analogue land document in the registry is presented in figure 4.2. 81.18% of the respondents claimed that the problem associated with analogue land document has reduced to a very large extent. 12.94% claimed to have reduced to large extent and 5.88% to a little extent. The indicates that e-land document has helped in reducing analogue problem to a very large extent.

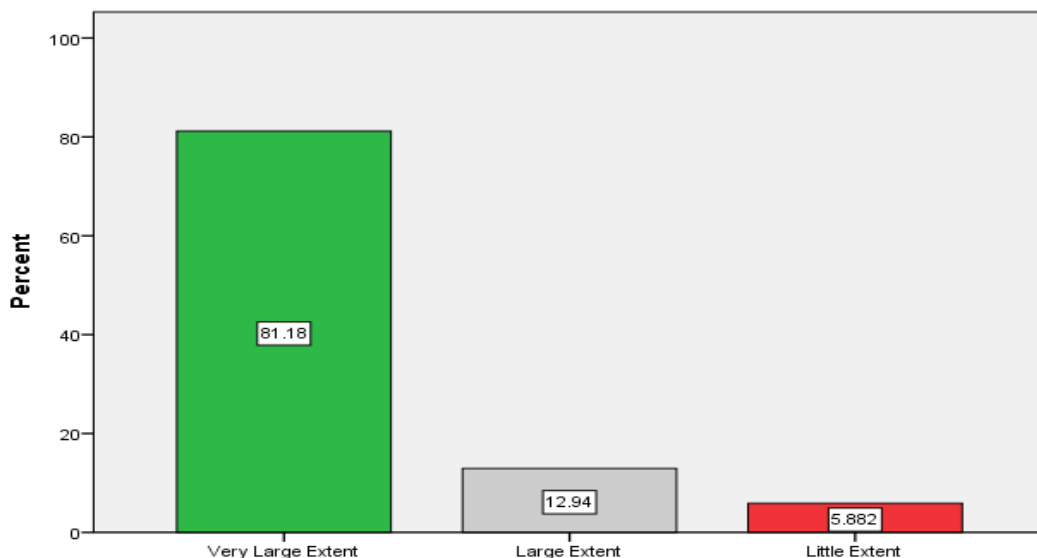


Figure 2.2 What Extent of Reduction in the Problems of Analogue land document in the registry

Source: field survey, 2019

The challenges to the process of e-land documentation are presented in table 4.3. the analysis of five-point likert scale (strongly agree, agree, indifferent, disagree and strongly disagree) revealed that Inadequate public education and enlightenment on new digital certification process is ranked first as one the challenges to the process of e-land documentation in NIGIS at 96% relative important index. Non anticipation of technological advancement that makes EDMS (e-document management system) less reliable and poor identification of parties to transactions and the authentication of documents were ranked second and third at 95% and 92% relative importance index. This is also followed by inadequate security in land registry and Inadequate funding of the land registry were ranked 4th at 91% and 91% relative importance respectively. the relative importance is found high in area of Lack of openness and trust in land administration process, Inadequate land transaction document at land registry, Lack of cadastral infrastructure, and Estate Surveyors and Valuers as Registrars of titles. The result of chi-square statistics revealed that the value of chi-square at 33.06 is statistically significant at p-value 0.000 is less than 0.05, therefore the opinion of respondents on the identified challenges to the process

of e-land documentation e-land land document process in NIGIS is related significantly.

Table 2 Challenges In The Process Of E-Land Documentation

Challenges	N	Sum	Mean	RII	RK	Chi-sq	p-value
inadequate security in land registry	340	1551	4.56	0.91	4	33.06	0.00
Inadequate public education and enlightenment	340	1636	4.81	0.96	1		
poor identification of parties to transactions and the authentication of documents	340	1570	4.61	0.92	3		
Non anticipation of technological advancement that makes EDMS less reliable	340	1609	4.73	0.95	2		
Non recognition of land administration experts such as Estate Surveyors and Valuers as Registrars of Titles	340	1707	4.02	0.80	8		
Inadequate funding of the land registry	340	1552	4.56	0.91	4		
Inadequate land transaction document at land registry	340	1447	4.25	0.85	6		
Lack of openness and trust in land administration process	340	1508	4.43	0.89	5		
Encroachment into right of ways	340	1632	4.80	0.96	1		
Lack of cadastral infrastructure	340	1409	4.14	0.83	7		
Valid N (listwise)	340						

Source: Field survey, 2019

The ways forward to sustainable e-land documentation are presented in table 2. the analysis of five-point likert scale (strongly agree, agree, indifferent, disagree and strongly disagree) revealed that I enactment of the right legislation to make e-land titling accessible is ranked first as one the ways forward to sustainable e-land documentation in NIGIS at 96% relative important index. Reservation of the registrar of title position to legal practitioners and Estate surveyors and Land title registration be made compulsory especially to deemed grand title were ranked second at 93% and 93% relative importance index. This is also followed by consultation with all stakeholders in land title registration systems and continuous training of staff were ranked 4th at 91% and 91% relative importance respectively. the relative importance index is found high in area of adequate

enlightenment on documentation system, deployment of modern technological system such as geographical information system (G.I.S), GPRS, and Decentralization of the land registry. The result of chi-square statistics revealed that the value of chi-square at 22.76 is statistically significant at p-value 0.000 is less than 0.05, therefore the opinion of respondents on the identified ways forward to sustainable e-land documentation in NIGIS is related significantly.

Table 3 Way Forward To Sustainable E-Land Documentation

Ways	N	Sum	Mean	Rll	RK	Chi-sq	p-value
e-Land title registration be made compulsory especially to deemed grand title	340	1577	4.63	0.93	2	22.76	0.000
Reservation of the registrar of title position to legal practitioners and Estate surveyors	340	1587	4.66	0.93	2		
Computerization of the land registry court	340	1518	4.46	0.89	5		
continuous training of staff	340	1528	4.49	0.90	4		
adequate enlightenment on documentation system	340	1704	4.01	0.80	5		
Decentralization of the land registry;	340	1442	4.24	0.85	6		
deployment of modern technological system such as geographical information system (G.I.S), GPRS	340	1523	4.47	0.89	5		
enactment of the right legislation to make e-land titling accessible	340	1613	4.74	0.95	1		
consultation with all stakeholders in land title registration systems	340	1548	4.55	0.91	3		
Valid N (listwise)	340						

Source: Field survey, 2019

Conclusion and Further Research

The study further discovered that inadequate public education and enlightenment on new digital certification process is one the challenges to the process of e-land documentation in NIGIS and it relative important is shown at 96%. Non anticipation of technological advancement that makes EDMS (e-document management system) less reliable and poor identification of parties to transactions and the authentication of documents, Lack of openness and trust in land administration process, Inadequate land transaction document at land

registry, Lack of cadastral infrastructure were found to have challenged the process of e-land document in NIGIS.

The study found that enactment of the right legislation to make e-land titling accessible is major head way forward to sustainable e-land documentation in NIGIS at 96% relative important index. Reservation of the registrar of title position to legal practitioners and Estate surveyors, Land title registration be made compulsory especially to deemed grantee, adequate enlightenment on documentation system, deployment of modern technological system such as geographical information system (G.I.S), GPRS, and Decentralization of the land registry have been identified for sustainable e-land documentation in NIGIS.

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