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Editorial

Welcome to volume 6, issue 1 of the *Journal of African Real Estate Research* (JARER). The idea for the special issue *Women in African Real Estate and Urban Development Research* showcasing the work of female African authors arose from the editors' discussion at the 2019 AfRES meeting about the lack of female representation on the editorial board and in the journal's pages. The International Real Estate Society would recruit women worldwide to participate. A team of one African and one American female researcher took on the editorial task and a cadre of female researchers from sister societies volunteered to serve as mentors and reviewers to supplement the JARER editorial board.

Of the 15 manuscripts with lead female author submitted, seven were accepted and appear in this issue. They represent research from multiple African countries on property topics ranging across physical construction, urban policy, and legal issues. The scholarship focuses variously on gender-specific and general development concerns.

We express our gratitude to the reviewers for their constructive advice to the authors and the mentors: Ramya Aroul, Stephanie Butcher, Olga Filippova, Julia Freybote, Geci Karuri-Sebina, Peddy Lai, Kimberly Winson-Geideman, and Stephanie Yates. These women guided the authors through the submission and revision process, providing valuable advice. This special issue received support from Luke Boyle, JARER's managing editor, who has been an invaluable member of the team. And finally, kudos to Professors Abel Olaleye, editor-in-chief, and Aly Karam, associate editor, for recognizing the potential for this project.

Little did we know when we embarked upon this journey that the world would be engulfed in a pandemic. The staff, authors and supporters faced challenges that made the publication process more onerous than usual. In addition, we suffered a terrible loss. This issue is dedicated to Dr. Mary Adebola Ajayi whose manuscript was in the final revision stage when she fell ill. A memorial appears after this editorial, then her paper, a work interrupted by a life cut short.

Dr Ajayi's paper examines general impediments to land title registration as well as gender differences in government land allocations and title registration in the private land market in Akure, Nigeria. Land department officials believe lack of awareness and processing time are the main hinderances to land title registration. In addition, men are allocated significantly more government land and issued significantly more Certificates of Occupancy on private lands than women. Joint titles are rare.

In a related vein, Sophia Marcian Kongela and Florencia Bahati Didas explore urban property co-titling in a settlement in Dar es Salaam, Tanzania. The authors use data from a regularization programme and interviews with government officials, local political leaders, and 59 property owning couples to explore joint title awareness, preferences, and actions. Despite government officials' efforts at education and legal aid, most women interested in co-titling were overruled by their husbands, who placed the property in their name only. The authors suggest educational programs, especially for men, about women's land ownership rights.

Augustina Chiwuzie and her co-authors use content analysis to explore female residents' and community leaders' perceptions of women's access to rural farmland in Ile-Ife, Nigeria. The women believe that purchasing or leasing land is more unaffordable for them than men. They also lack security in that they can be dispossessed at divorce, separation or death of the husband.

Customary laws and traditional practices are thought to hinder rural women's access to secure land rights despite governmental reforms.

The paper by Esther O. Thontteh and Modupe M. Omirin examines why housing is not being constructed on available land in the Lagos urban fringe despite a severe housing shortage and supportive national housing policies. Developers and Land Bureau officials believe weak institutional frameworks, inconsistent government regulations and policies, and high construction costs create barriers to construction. While developers prefer joint ventures and administrative reforms to address the problem, government land officials prefer contract construction deadlines. The authors suggest administrative and collaborative innovations.

Prisca Simbanegavi and her co-authors use in-depth interviews with 27 commercial real estate industry participants to identify the challenges faced by regeneration projects in the Johannesburg, South Africa inner city. They recommend several public policy changes: increased transparency in the tender system, creation of PPPs and City Improvement Districts to finance infrastructure services, and provision of social housing.

The role that construction plays in global concerns about water is considered by Thabelo Ramantswana and her co-authors. Interviews with 36 South African construction professionals underscore the importance of water throughout the construction process. Risk assessment, mitigation plans, and establishing contractual responsibilities for water provision are important considerations amid water scarcity.

In the final paper, Basirat Ashabi Oyalowo and her co-authors explore property tax systems in Addis Ababa, Dar es Salaam, Kigali and Lagos. They find that property tax reforms have increased participation and revenue, yet evasion continues. The role of local governments in facilitating more efficient and sustainable taxation systems is argued. The researchers also suggest that property tax revenue be invested in infrastructure for communities whose residents pay their taxes, rewarding their compliance and encouraging others to pay.

UN Sustainable Development Goal No. 5 expresses the imperative to achieve gender equality and, more specifically, the African Union's Agenda 2063 centres gender equality and participation of women as a key enabler for the continent's future. Goal 14 specifies an aspiration to 'Full gender equality in all spheres of life' including equal economic rights and access to productive assets (including land). This JARER special issue advances these aspirations by its means and its knowledge output. We invite you to read these papers and consider their research-based suggestions for reforms in public policies and practices towards Africa's more sustainable and inclusive development.

Sincerely,

Karen M. Gibler and Geci Karuri-Sebina

Co-editors: JARER Special Issue by Women in African Real Estate and Urban Development Research

In Memoriam



Dr. Mary Adebola Ajayi (nee Adeniyi)

12th May, 1976 – 7th March, 2021

Mary Ajayi received her B. Tech. in 1999, M. Tech in 2004, and PhD in 2014 from the Federal University of Technology Akure in Nigeria. She first worked in the Land Section of the Federal Ministry of Works and Housing before joining the Department of Estate Management at FUTA where she rose from Assistant Lecturer to Senior Lecturer and then Associate Professor (Reader). Dr. Ajayi was appointed Acting Head of the Department of Estate Management in August 2019. She obtained her professional qualification from the Nigerian Institution of Estate Surveyors and Valuers and became an Associate Member. Dr. Ajayi's research focused on gender, land and housing studies with publications on such topics as changing land use patterns, sustainable housing, property valuation, and women's access to land, forests and housing. Mary was married with three children. She died on 7 March, 2021 after a brief illness.

At the time of her passing, Dr Ajayi was in the process of finalising her article for this special issue with great commitment under the mentorship of Dr Kimberly Winson-Geideman of the University of Melbourne. We publish her final paper as is in her honour and memory.



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*Special Issue: Women in African Real Estate and Urban
Development Research*



A Baseline Assessment of Gender Distribution of Government Land Allocation and Privated Tilted Lands in Akure, Nigeria

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Abstract

There is strong evidence that most land transactions in Nigerian urban areas take place in the private or informal land market and remain untitled. Only a small percentage of land transactions take place through government allocation even though it ensures greater tenure security. This study examines gender distribution in the allocation of government lands in Akure, Nigeria and the rate of land title registration in the private land market using secondary data of land allocation and Certificate of Occupancy for a period of 10 years (2009-2018) from the Lands Department of the Ministry of Works, Land and Housing, Akure. Close-ended questionnaires were administered to the officials in charge of the records and the Director of the Department was interviewed. Primary data were analysed using weighted mean scores, while secondary data were analysed using ratio and difference measures, trend analysis and analysis of variance (ANOVA). Findings show that the number of registered land titles in private land was lower than the number of government land allocations even though more transactions took place in the private land market. The time taken to process land title registration and lack of awareness were ranked highest among factors affecting land title registration, while cost of processing was ranked least important. Although there were no gender specific requirements in the process of land allocation and title registration, stereotypes appear to play a role in land distribution decisions and title registration across the study area. A risk ratio of as high as three to one (males to females) in land allocation and 10 to one in land title registration was observed in some years. The paper recommends educating people, especially women, about the importance of land titling and the process of accessing government land, which is far more secure than private land. Recommendations are also made towards a better land registration process in the study area.

Keywords: Gender; Government Land; Land Titling; Nigeria; Tenure Security

1. Introduction

The importance of land cannot be over-emphasised. Land contributes significantly to production (agriculture, manufacturing and building construction); and it is a source of power, social prestige, cultural identity and heritage (Lipton, 2009; Odeny, 2013). The customary land tenure system in which land transactions are administered by cultural norms is used in about 75% of land in Africa (Odeny, 2013). In line with this, Rakodi and Leduka (2004) and Durand-Lasserve (2006) believe that more transactions take place in lands held under customary tenure in the private or informal sector than in the formal or public land sector. This means that a greater number of people gain access to land through the informal land market. Nevertheless, much land transacted in the informal land market does not have title registration with the State in the form of a Certificate of Statutory Right of Occupancy (C of O) in Nigeria. Hence, the inherent potential in such untitled lands, such as providing security and investment incentive and contributing to financial development by increasing the supply of credit facility, cannot be maximised. Land registration is vital to tenure security, which can lead to land investment, land value appreciation, a reduction in land disputes and litigation costs, a more efficient land market, greater access to credit facilities and efficient redistribution of property (Byamusigha, 1999; De Soto, 2000; Awuah & Hammond, 2013; Nwuba & Nuhu, 2018).

This paper examines the rate of land title registration in the informal market and allocation of land by the government by examining land transactions in the informal market that were registered or titled and government land allocation over a period of 10 years in Akure, Nigeria. The paper further examines the gender differentials in both the formal and informal land markets while also looking at factors that hinder land title registration in the city. The research questions are as follows:

1. What are the factors affecting land title registration in the study area?
2. What is the gender distribution of land allocations by the government between 2009 - 2018?
3. What is the gender distribution of private titled lands that were issued C of O between 2011 - 2018?

2. Literature Review

The literature review includes the concept of land accessibility and tenure security, empirical studies on land title registration and the legal framework for property ownership by married couples in Nigeria.

2.1. Concept of Land Accessibility and Tenure Security

Land access is defined by the United Nations Human Settlement Programme as “*opportunities for temporary or permanent use and occupation of land for purposes of shelter, productive activity, or the enjoyment of recreation and rest*” (UN-HABITAT, 2008: p.5). This access can be acquired through direct

occupation, exchange, membership in family and kin groups or by allocation by government or other landowners. Allocation by government, first settlement, conquest, long occupation or market transaction are also identified by Toulmin (2008) as means of accessing land in Africa. Tutu et al. (2016) identify six means of gaining access to land in rural Ghana as inheritance, grant, contractual arrangement or rent, purchase, marriage and gift. Furthermore, Ajayi (2014) confirms the means of gaining access to land in southern Nigeria to include inheritance, purchase, government allocation and gift. There are four elements of land accessibility as conceptualised by Omirin (2002): availability of land, affordability of land, ease of transaction in land and the security of tenure in land. Nwuba (2017) supports this by recognising that having access to land requires availability of usable land with secure tenure that is economically affordable combined with relative ease of transaction.

This paper deals with tenure security as one of the elements of land accessibility because land registration is aimed at securing one's tenure in a piece of land. Tenure security is deemed to be higher in government lands than in private lands. Tenure security is based on the certainty of the bundle of land rights and the certainty that a person's rights to land will be recognised by others and protected in cases of specific challenges (Food and Agriculture Organisation, 2002; Hoekema et al., 2009). The higher the tenure security, the lower is the risk of rights to land being threatened, compromised or eliminated. Place et al. (1994: p.19) state that:

“Land tenure security can be defined to exist when an individual perceives that he or she has rights to a piece of land on a continuous basis, free from imposition or interference from outside sources, as well as ability to reap the benefits of labor and capital invested in that land, either in use or upon transfer to another holder”

People view tenure security differently, hence measuring how secure land is can be subjective and may be measured indirectly. That is, tenure security is what people perceive it to be. Tutu et al. (2016) examined the perception of tenure security in a study on developing a pro-poor approach to land title registration in Juaben-Atia, a rural settlement in Ghana. Of the 53 respondents, 80% perceived their tenure to be secure due to the absence of boundary disputes. Another 14% attributed their tenure security to long occupation with no counter claim. Meanwhile, 6% could not give any reason for their perception of tenure security. Most of respondents (70%) who were aware of the importance of land title registration, preferred the use of social mechanisms and natural features to secure their farm parcels. Almost half (46%) of the respondents believed that taking physical possession of the land rather than records in an official book is enough to secure their tenure at the local level. Additionally, 54% indicated that recognition of their occupation by the traditional authority was more important to them than recording their interest in a land register.

Despite the much-acclaimed importance of land registration for tenure security, Abdulai (2006) holds a contrary opinion. The author argues that

increasing security and certainty of tenure does not require land title registration, which is a 'colonial creation', and instead proposes five ingredients of secure and certain land rights: recognition of an individual's land rights by the community, availability of land rights enforcement institutions, ascertained duration of property rights to land, clear definition of property rights in land and clear boundary demarcation of land. Once these ingredients are in place, the assumption that customary land tenure is insecure and uncertain, requiring land title registration as the solution, is untenable. This view is true to some extent, but it does not negate the importance of having a legal title document, which may be required, for instance, to use the property as collateral for credit facility. Even if, as argued, land title registration is not the solution to tenure security, it does provide a written evidence of an interest in land and makes the property more liquid.

2.2. Empirical Studies of Land Title Registration in Nigeria

Despite the benefits of land titling, as of 2008, less than 20% of land in sub-Saharan Africa was titled and the portion in West Africa was as low as 2.3% (Toulmin, 2008). Furthermore, poor people are usually excluded from acquiring title to their land because of the expensive, complex and slow process of land title registration.

The land title registration process in Nigeria creates challenges that often discourage landowners from registering their land. These include slow and laborious manual procedures (characterised by a paper filing and information card system), insecure data storage vulnerable to destruction by termites or fire, lack of integrity and gross administrative inconsistencies in almost all of the 36 states in the federation. In Ojo's (2014) study, end-users (professionals such as lawyers and estate surveyors, and individuals processing title registration) in Akure, Nigeria were dissatisfied with the land title registration process in terms of time required, level of transparency and lack of modern information technology available at the Land Registry. However, end-users were satisfied with the cost of title registration.

Thontheh and Omirin (2015) examined the effectiveness of the Electronic Document Management System (EDMS) used in land registration in Lagos State as part of a land reform. They discovered that the EDMS improved land registration and that the reform resulted in improved tenure security, more confidence in land transactions, centralised and consolidated file storage and a reduction in waiting time for land information. However, the EDMS neither reduced the number of land disputes nor increased the number of applications processed or the amount of revenue generated by the government. It still takes more than 120 days to process title registration with challenges including the high cost of registration, inadequate technical skills and incompetent staff, high land charges, an ambiguous legal framework and institutional problems. Ekemode et al. (2017) examined the factors influencing land title registration practice in Osun-State, Nigeria. Data were collected from a systematic random sample of 520 land title registration applicants, representing 48.1% of the total applicants for land title/property rights registration in the state.

The analysis using descriptive and inferential statistical techniques such as frequency distributions, percentages, a Relative Importance Index (RII) and factor analysis revealed that factors such as the high cost of title documentation and corrupt practices of land registry staff had significant influence on the land title/property rights registration process while factors such as suitability of organisational structure and personnel competence/low morale had less influence on land title registration in the study area. The findings of Udo (2017) about operations in Akwa-Ibom State are similar. Title registration is time consuming, tedious and repetitive with high costs and excessive taxes and there is poor communication and collaboration between agencies handling land administration in the state. The study recommends subsidising the cost of registration and using a computer aided system.

Ojo and Olukolajo (2019) studied the constraints associated with registration of secure property rights in Akure, Nigeria. They used factor analysis to extract six factors comprised of 21 variables. The factors are: time involved in achieving land title registration, inappropriate organisation structure, obsolete or archaic process, absence of modern facilities, defective organisational structure and inadequate human capital. The time taken to achieve land title registration, the bureaucratic procedure involved, inappropriate documents, officials' poor knowledge of ICT and poor internet connectivity are among the inhibiting factors. The study recommends introducing a modern Land Information System (LIS) and Geographic Information System (GIS) into the property rights registration process to make data more secure, enhance data storage and provide easy access and retrieval. Nwanekezie and Mendie (2019), while examining the effect of the titling process on property development in Uyo, Nigeria, identify challenges of the process to include high charges, lengthy or unknown duration to obtain title, lack of transparency, unfriendly staff, submitting the same documents to all the units of the Registry, which stems from poor collaboration between the agencies as identified by Udo (2017), and inability of applicants to access the correct information at the appropriate time. The study recommends delegation of the Governor's Consent and reduction in charges.

As an illustration of the problems with its land title registration program, Nigeria ranked 179th out of a total of 183 countries assessed in the 2011 World Bank ranking of nations' property title registration (World Bank, 2011). The assessment also revealed that the Nigerian states have an average of 13 procedures spanning an average of 82 days and costing an average of 20.9% of the property value involved in land title registration process. The World Bank (2014) further revealed that in states where Governor's Consent is delegated, as recommended by Nwanekezie and Mendie (2019), registration takes 67 days compared to 110 days where it is not delegated.

These studies have dwelled extensively on the challenges in the land title registration processes in Nigeria. The challenges are enormous and similar across the states. However, none of these studies compared the rate of land title registration in the informal market with the rate of government land

allocation, which is already titled. Also, none examined gender differentials in land title registration.

2.3. Legal Framework for Land Ownership by Married Couples in Nigeria

Women are usually among the vulnerable groups when considering land and property issues. Empirical evidence exists of violations of the fundamental human right to own property being perpetrated against women (Human Rights Watch, 2004; Ajayi & Olotuah, 2005; Njieassam, 2019). In most parts of Africa, land ownership is still seen as a male concern, hence married men usually write only their names on land documents as the household head. This indicates the need for enlightenment as to the importance of joint titling of land by married couples to ensure tenure security for the woman in case of widowhood or divorce (Ajayi & Olotuah, 2005).

The legal framework for property ownership in Nigeria is derived from British law, specifically, the Married Women's Property Act 1882 of England, a statute that allows a husband or wife to make an application to any judge of the High Court as to acquisition of title to or possession of property. According to Perchstone and Graeys (2016), a husband and wife have equal undivided rights in a property in which they are joint owners. That is, when the title to the property is registered in both of their names, they have equal rights and their powers over the property are exercisable jointly. The husband cannot dispose of or transfer the property by will without the consent of the wife, even after the marriage has been dissolved. Joint ownership also gives survivorship right to the spouse after the demise of the other. The surviving partner receives all the property. Hence, joint titling is a panacea to violation of widows' property rights by in-laws.

In the absence of joint titling, when a marriage is dissolved, the wife can be given one-third of the property. This was confirmed 45 years ago by the case of Egunjobi vs Ogunjobi in the Western State Court of Appeal, Lagos, Nigeria (1976) where the wife's financial contribution to the construction of a house in which the title deeds were in the husband's name was established. The Court of Appeal affirmed the lower court's decision by granting the wife a one-third share of the proceeds of sale of the property in the event of its sale.

There are laws allowing either spouse to apply to the court for a share of the matrimonial assets in Nigeria. However, it is usually the woman who makes such an application because, in most cases, she is financially dependent on her husband and the legal title to land is normally in her husband's name, due to the culture. In a divorce, judges usually pass judgment for the husband to give the wife a lump sum or periodic payments rather than property. There had been very few cases in which married women were granted matrimonial assets upon divorce prior to 2007 (Ashiru, 2007). There is no empirical study to suggest that the situation has changed or improved.

3. Research Methodology

The study area selected is Akure, a growing city located in the southwestern part of Nigeria. Akure is the headquarters of Akure South Local Government Area and the capital of Ondo State. There is rapid population growth and development in the city and, therefore, high demand for land by individuals and corporations.

Both primary and secondary data were collected for this study. All data were collected in August 2019. First, primary data were gathered through the administration of questionnaires to all 20 officials in charge of land titling and through a personal interview with the Director of the Lands Department, who oversees government residential land under the Ministry of Works, Land and Housing, Akure. Weighted mean scores were used to rank the perceptions of respondents as to the importance of the factors impeding land title registration. Secondary data were obtained from the records of government land allocation and C of O of private lands issued over a period of 10 years (2009 – 2018). These were analysed using risk ratios and risk difference measures, as suggested by Pedreschi et al. (2008). Data were segregated based on gender.

Risk ratio= $(p1/p2)$ where:

- $p1$ = number of male allottees of government land or males with C of O; and
- $p2$ = number of female allottees of government land or females with C of O.

Risk difference= $p1-p2$.

Trend analysis was used to investigate the percentage change in the number of government land allocations to males and females as well as number of C of O between 2009 and 2018. ANOVA was used to examine the mean difference between the gender groups.

4. Results and Discussion

4.1. The Land Title Registration

Background information for the 20 officials working in the Lands Department of the Ministry of Works, Land and Housing, Akure who completed questionnaires is presented in Table 1. As an experienced group, most having worked for the Lands Department for 11 to 20 years, they are knowledgeable about the operations and processes involved in land title registration and government land allocation. Almost half (40%) work in the Land Services Section, which handles the allocation of government land to private developers. Meanwhile, 50% work in the Deemed Rights Section, which processes the C of O.

Table 1: Background Information for Lands Department Respondents

| Variables | Responses | Percentage (%) (n=20) |
|--------------------------|---------------|--------------------------|
| Gender | Male | 40% |
| | Female | 60% |
| Length of Service | <10 | 25% |
| | 11-20 | 60% |
| | 20+ | 15% |
| Level | 1-6 | 25% |
| | 7-12 | 45% |
| | 13+ | 30% |
| Section | Land services | 40% |
| | Deemed rights | 50% |
| | Deed registry | 10% |

According to the Director of the Lands Department, all applicants who met the requirements for the allocation of government land were granted allocations irrespective of gender. The requirements include a photocopy of current tax clearance certificate, Ondo State Development Receipt and a passport photograph. A Certificate of Incorporation is required for a corporate body or entity. These documents are attached to the application form, which is obtained from the Ministry for a fee.

Officials working in the Lands Department were asked to rate how strongly they agreed that four factors inhibit land title registration. The responses were converted to a numerical scale of 1 to 5. The weighted mean scores and ranking of the factors affecting the land title registration are presented in Table 2.

**Table 2: Factors Hindering Land Title Registration in Akure
 According to Lands Department Officials**

| Factor | Strongly Agree | Agree | Undecided | Disagree | Strongly Disagree | Mean | Rank |
|---------------------------|----------------|-------|-----------|----------|-------------------|------|------|
| Lack of awareness | 8 | 9 | 0 | 2 | 0 | 4.21 | 1 |
| Time required | 4 | 14 | 0 | 1 | 0 | 4.11 | 2 |
| Bureaucracy | 5 | 10 | 2 | 2 | 0 | 3.95 | 3 |
| Cost of processing | 3 | 8 | 2 | 3 | 3 | 3.26 | 4 |

Note: n= 19

Questionnaires were administered to 20 staff but only 19 filled the section about factors that affect the land title registration. The respondents believed the factors that most likely hinder title registration are the time taken for the registration and lack of awareness of the importance of title registration. Bureaucracy or long processing follows with a weighted mean score of 3.95. The least important factor is cost of processing.

While the Director reported that the normal time for processing is within three months, processing may take longer because of incomplete documentation presented by the applicant and the decision of the current State Government to sign or delegate the signing of the document. The paperwork requirements are not gender specific, but a tax clearance certificate may be alien to low- and middle-income earners, who are predominantly women working in the informal sector.

The perceived lack of importance of cost agrees with the findings of Ojo (2014) and Ojo and Olukolajo (2019) in Akure, but is contrary to the finding of Nwanekezie and Mendie (2019) where cost was the most important factor in Uyo. The requirement for three years' tax clearance may be beyond the reach of low- and middle-income informal workers. Also, the cost of processing title documents depends on the size of the land and the purpose for which the land will be used. The cost for residential property was N45,000 per plot and commercial property was N85,000 per plot at the time of the study while land for agricultural purpose was charged a lower cost to encourage farmers. (US\$1= N360 at the time of data collection).

4.2. Government Land Allocation

Secondary data consisting of allocation records of government land and C of O between 2009 and 2018 were used to examine gender differences. Figure 1 shows that there was a consistently higher number of land allocations made to males over the years. Of the 2,726 plots allocated over the 10-year period, only 29.6% were allocated to females. Total allocations were highest in 2015 and lowest in 2018 when 24.7% of the allocations were to females. Joint ownership was generally low in the study area.

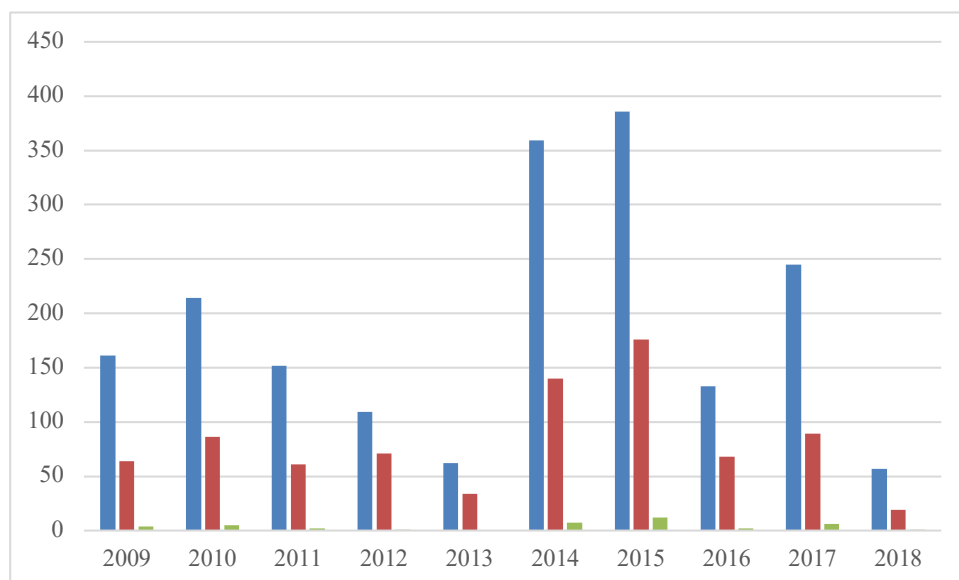


Figure 1: Number of Parcels Allocated in Government Land in Akure 2009-2018

Data Source: Lands Department, Ministry of Works, Lands and Housing, Akure

The smallest difference between male and female land allocation occurred in 2013 at 28 plots in favour of males while in 2014 the highest difference was 219 plots in favour of males, as shown in Table 3. There was no year when females received a higher number of plots than males. The risk ratio for male versus female government land allocation was lowest in 2012 at 1.5 and highest in 2018 at 3.0. This means for every female receiving a plot allocation, there were three males who were allocated plots in that year.

Table 3: Gender Risk Difference and Ratio Measures of Government Land Allocation in Akure 2009-2018

| Year | Number of Land allocations | | Risk difference | Risk Ratio |
|------|----------------------------|-------------|-----------------|------------|
| | Male (p1) | Female (p2) | (p1-p2) | (p1/p2) |
| 2009 | 161 | 64 | 97 | 2.5 |
| 2010 | 214 | 86 | 128 | 2.5 |
| 2011 | 152 | 61 | 91 | 2.5 |
| 2012 | 109 | 71 | 38 | 1.5 |
| 2013 | 62 | 34 | 28 | 1.8 |
| 2014 | 359 | 140 | 219 | 2.6 |
| 2015 | 386 | 176 | 210 | 2.2 |
| 2016 | 133 | 68 | 65 | 2.0 |
| 2017 | 245 | 89 | 156 | 2.8 |
| 2018 | 57 | 19 | 38 | 3.0 |

For a trend analysis, Table 4 shows the nominal and percentage changes in the allocation of land to males and females over the 10-year period. As illustrated in Figure 1, the change over the years was undulating, that is, increasing and decreasing, a pattern that is likely connected with the political and economic changes in the country. There was a marked increase in the number of allocations to both males and females in 2014 and 2015. This could be a consequence of the consolidation of the state government in its second term of office and the level of prosperity in the economy at the time. The government attempted to stabilise the economy of the state through prompt payment of salaries. As Ondo State is primarily a civil service state and incomes are mainly government salaries, non-payment of salaries to the civil servants would have a ripple effect on all sectors of the economy in the state.

A sharp negative change is observed in 2016 and 2018 for both male and female allocations. This could be because the tenure of the sitting governor was coming to an end in February 2017. Although government should be a continuum, it has been observed in Nigeria that when the tenure of a political officer ends, it takes a while for the new tenure to stabilise economically. Notably, it was only in 2012 that there was an increase in allocations for females (16.4%) and a simultaneous decrease for males (28.3%). Even so, the land allocation for males was still higher than for females at 109 and 71, respectively. Figure 2 is a graphical representation of the change in government land allocation to males and females shown in Table 4.

Table 4: Nominal and Percentage Annual Changes in Government Land Allocation in Akure 2009-2018 by Gender

| Year | Land Allocations | | | | | |
|------|------------------|--------|----------|--------|--------|----------|
| | Male | | | Female | | |
| | Number | Change | % change | Number | Change | % change |
| 2009 | 161 | - | - | 64 | - | - |
| 2010 | 214 | 53 | 32.9% | 86 | 22 | 34.4% |
| 2011 | 152 | -62 | -29% | 61 | -25 | -29.1% |
| 2012 | 109 | -43 | -28.3% | 71 | 10 | 16.4% |
| 2013 | 62 | -47 | -43.1% | 34 | -37 | -52.1% |
| 2014 | 359 | 297 | 479% | 140 | 106 | 311.8% |
| 2015 | 386 | 27 | 7.5% | 176 | 36 | 25.7% |
| 2016 | 133 | -253 | -65.5% | 68 | -108 | -61.4% |
| 2017 | 245 | 112 | 84.0% | 89 | 21 | 30.9% |
| 2018 | 57 | -188 | -76.7% | 19 | -70 | -78.7% |

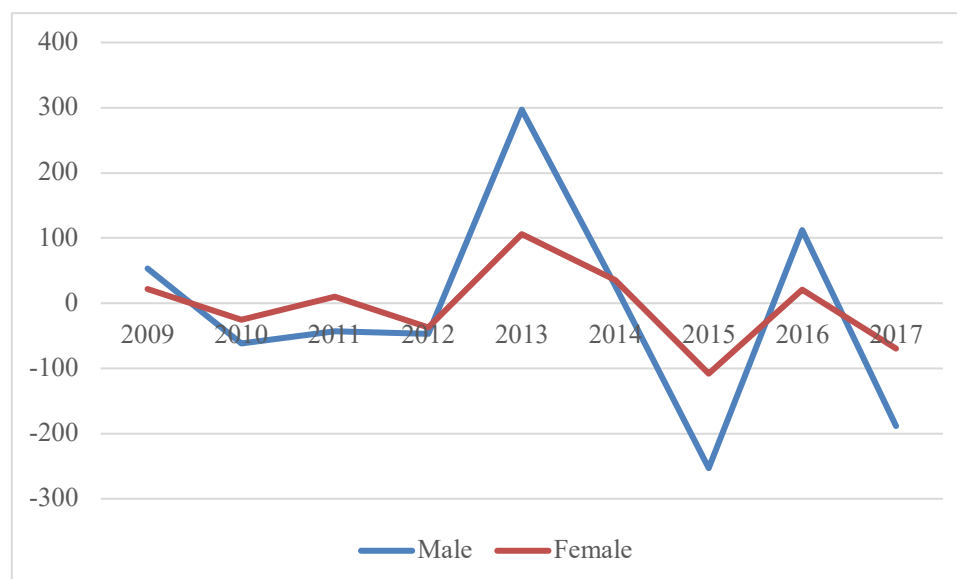


Figure 2: Annual Change in Number of Government Land Allocations in Akure 2009-2018 by Gender

ANOVA results in Table 5 show that there is a significant difference in the mean annual number of plots allocated to the male, female and joint title groups of allottees for the period of study. The post hoc test results in Table 6 further show that the difference in the average number of allocations to males and females as well as difference between male and joint title allocations is significant. There is no significant difference (at the 5% level) in the means of female and joint title allocations.

Table 5: ANOVA of Annual Government Land Allocation Between Male, Female and Joint Titles 2009-2018

| | Sum of squares | Df | Mean square | F | Sig. |
|-----------------------|-----------------------|-----------|--------------------|----------|-------------|
| Between Groups | 170432.27 | 2 | 85216.13 | 16.86 | 0.000 |
| Within Groups | 136423.20 | 27 | 5052.71 | | |
| Total | 306855.47 | 29 | | | |

Table 6: Tukey HSD Post Hoc Test of Difference in Annual Government Land Allocations in Akure 2009-2018 by Gender

| Groups | | Mean Difference | Standard Error | Sig. |
|---------------|--------|------------------------|-----------------------|-------------|
| Male | Female | 107.000* | 31.79 | .006 |
| Male | Joint | 183.800* | 31.79 | .000 |
| Female | Joint | 76.800 | 31.79 | .057 |

*Note: *The mean difference is significant at 0.05 level.*

4.3. Certificates of Occupancy (C of O)

C of O records were available for 2012 to 2018. Earlier years could not be assessed due to manual record keeping. A total of 912 C of O were issued within the seven years for which records are available. Out of these, 74.1% were issued to males while 25.9% were issued to females. Joint titles were counted as male and not recorded separately. Figure 3 shows that a consistently higher number of males received C of O over the years. The highest absolute number and relative percentage of C of O were given to males in 2013 (192 or 90.6%). The smallest number of C of O were issued in 2014 with males receiving 57, which was still more than half of the total number of C of O issued that year. The year with the highest number of C of O issued to females was 2012 at 58 or 35.4% of the total number that year.

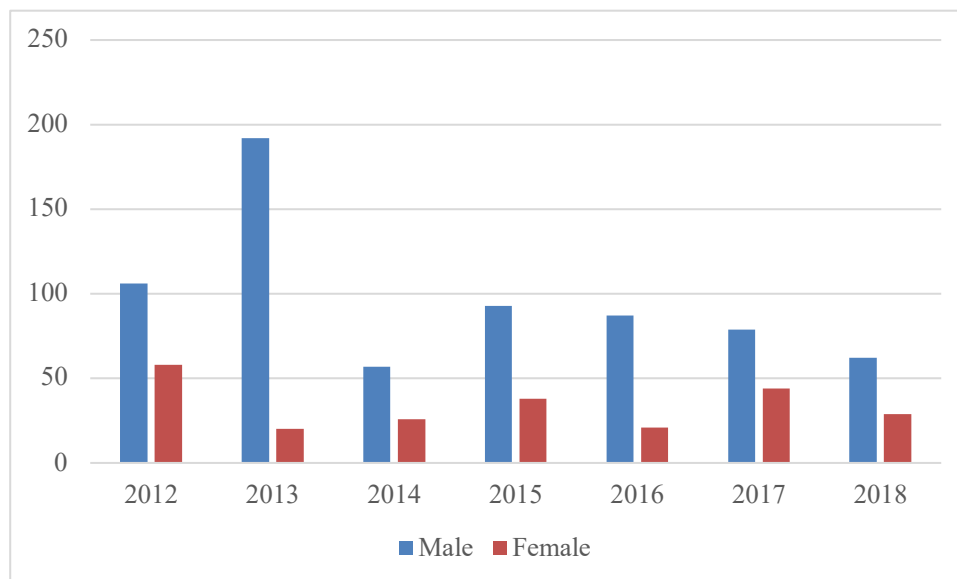


Figure 3: Number of C of O Issued on Private Lands in Akure 2012-2018 by Gender

Source: Lands Department, Ministry of Works, Lands and Housing, Akure

Table 7 shows the difference in the number of C of O processed for males (including joint titles) and females from 2012 to 2018. The smallest difference between the number of C of O issued to males and females occurred in 2014 at 31 certificates in favour of males while the previous year recorded the largest difference at 172 more certificates for males. There was no year when females received more C of O than males. The risk ratio was lowest in 2012 and 2017 at 1.8 and highest in 2013 at 9.6. This means that for every female who processed a C of O in 2013, there were approximately 10 males with C of O.

Table 7: Gender Risk Difference and Ratio Measures of C of O Issued on Private Lands in Akure 2012-2018

| Year | Number of C of O | | Risk difference | Risk ratio |
|------|------------------|-------------|-----------------|------------|
| | Male (p1) | Female (p2) | (p1-p2) | (p1/p2) |
| 2012 | 106 | 58 | 48 | 1.8 |
| 2013 | 192 | 20 | 172 | 9.6 |
| 2014 | 57 | 26 | 31 | 2.2 |
| 2015 | 93 | 38 | 55 | 2.5 |
| 2016 | 87 | 21 | 66 | 4.1 |
| 2017 | 79 | 44 | 35 | 1.8 |
| 2018 | 62 | 29 | 33 | 2.1 |

Table 8 shows the annual nominal and percentage changes in the C of O issued to males and females over the seven-year period. The percentage annual change in the number of processed C of O by gender are illustrated in Figure 4. The largest annual increase for males of 81.1% occurred from 2012

to 2013 whereas C of O issued to females decreased by 65.5% during the same time period. The following year, 2014, recorded the largest decrease for males (135) while females were issued 6 more C of O than the previous year. The largest increase for females occurred in 2017 when 23 more C of O were issued than the previous year, a 109.4% increase. This increase could be a result of the change of power in the state government in 2017.

Table 8: Nominal and Percentage Annual Changes in C of O Issued on Private Lands in Akure 2012-2018 by Gender

| Year | C of O | | | | | |
|------|--------|--------|----------|--------|--------|----------|
| | Male | | | Female | | |
| | Number | Change | % Change | Number | Change | % Change |
| 2012 | 106 | - | - | 58 | - | - |
| 2013 | 192 | 86 | 81.1% | 20 | -38 | -65.5% |
| 2014 | 57 | -135 | -70.3% | 26 | 6 | 30% |
| 2015 | 93 | 36 | 63.2% | 38 | 12 | 46.2% |
| 2016 | 87 | -6 | -6.5% | 21 | -17 | -44.7% |
| 2017 | 79 | -8 | -9.2% | 44 | 23 | 109.5% |
| 2018 | 62 | -17 | -21.5% | 29 | -15 | -34.1% |

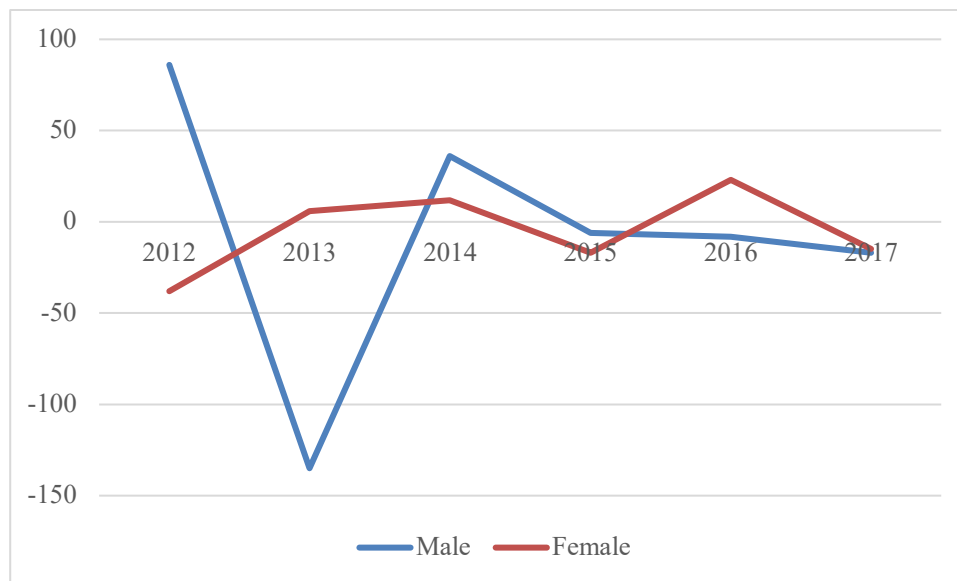


Figure 4: Annual Change in the Number of C of O Processed on Private Lands in Akure 2012-2018 by Gender

The ANOVA results in Table 9 show that there is a significant difference in the mean annual number of C of O processed for males and females during the period under consideration.

Table 9: ANOVA of Mean Annual Number of Certificates of Occupancy Issued for Males and Females in Akure, 2012-2018

| | Sum of Squares | Df | Mean Square | F | Sig. |
|-----------------------|----------------|----|-------------|--------|------|
| Between Groups | 13828.571 | 1 | 13828.571 | 12.278 | .004 |
| Within Groups | 13515.143 | 12 | 1126.262 | | |
| Total | 27343.714 | 13 | | | |

A major finding of the study is that the number of titled private lands is lower than the number of plots allocated by the government. Although a greater percentage of land transactions take place in the private land market (Rakodi & Leduka, 2004; Durand-Lasserve, 2006), only few of them are titled. The analysis confirms that females obtain land titles less often than males and the idea of joint ownership is not yet popular in the study area.

5. Conclusion and Recommendations

This paper examines government land allocation and title registration of private lands using the records of the Lands Department, Ministry of Works, Lands and Housing, Akure, for a period of 10 and seven years, respectively. The records show that government land allocation is greater than registered private land even though a greater number of transactions take place in the private land market. This shows that little importance is attached to title registration. Time taken in processing the C of O and lack of awareness were ranked as the greatest hinderance while cost of processing was ranked as the least hinderance to title registration by Lands Department officials. There is need for upgrading the Land Registry with modern ICT to improve the quality of services and reduce the time taken for processing.

Although the requirements for land allocation were not gender specific, there were consistently higher numbers of allocations of government land to males than females over the period under review with a Risk Ratio of 3:1 for males to females in the most recent year of data. This means that three males were allocated plots for every female that was allocated a plot in 2018. The title registration Risk Ratio was higher, even reaching 10:1 in 2013, pointing to lower tenure security for women. Both positive and negative changes were observed in the pattern of male and female land allocation which could be linked to the change of power in government and fluctuating economy of the State.

The number of joint titles was very low and this confirms the traditional practice of buying and registering land in a man's name. As women are predominantly in the informal sector, which is characterised by non-payment of tax, the requirement of tax clearance certificate might be a likely obstacle to low-income workers in the informal sector to registering their land titles.

As a result of the study, we recommend sensitisation (creating awareness) of the citizens, especially women, through their various networks on the availability and process of acquiring government land. With the existence of discriminatory cultural practices in the informal land market, women should be enlightened and encouraged to take advantage of government land, which is more secure. Government officials should seek to reduce the impact of political changes leading to delay in getting Governor's Consent in the process of land title registration. Practicing Estate Surveyors and Valuers in the state should educate their clients of the availability and requirements of government land allocation and the importance of having registered land titles.

Further studies can be conducted on the level of awareness of property owners in the study area on the importance of land registration. This study can also be replicated in other states in the country, especially in big cities like Lagos and Abuja where many land transactions take place.

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Assessing Co-Titling Desirability in Matrimonial Properties in Urban Land Ownership in Tanzania

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Abstract

Laws in Tanzania allow married couples joint ownership of land but in practice single land titling in the husband's name only is most common. The ability to co-title was expected to attract couples to own their matrimonial properties jointly; however, the rate at which spouses are adopting co-titling remains low. This paper assesses the desirability of co-titling in land ownership among spouses using key informant interviews and a survey of couples. It is based on a case study of Makongo Juu settlement in Dar es Salaam City where a regularisation programme was implemented. The paper reveals a number of benefits as well as constraints of co-titling for married couples. Findings show that a majority of female spouses had little awareness of the existence of co-titling arrangements. Whereas a majority of female spouses showed interest in co-titling of their matrimonial properties, male spouses were hesitant and, in some cases, they even denied their spouses rights to matrimonial land ownership. Traces of social norms, customs and traditions that generally do not favour co-ownership of matrimonial properties were noted to influence the couple's decisions. By looking into co-titling as a dimension of enhancing women's matrimonial property rights, this paper contributes to a wide discussion on women's land rights in the course of economic empowerment. The findings can be used in the formulation of gender mainstreaming policies and programmes in developing countries.

Keywords: Land Titling; Co-titling, Women's Land Rights; Joint Ownership; Tanzania

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1. Introduction

The United Nations indicated that women owned only 1-2% of all titled land worldwide in 2003 (Steinzor, 2003). The rate was reported to still be less than 5% in 2005 (Ik Dahl et al., 2005). Women, on average, made up less than 20% of the world's landholders in 2012 (UNHR, 2017). Much of the attention in the growing debate about strengthening women's land rights in Africa has focused on gender equality in land reform (Ik Dahl et al., 2005; Bayisenge et al., 2015); however, apart from incorporating gender equality provisions, there has been a failure in substantively addressing the close relationship between land and marriage as it affects women (Dancer, 2017).

Many developing countries still lack adequate provisions for women to hold land rights independently of their husbands or male relatives; and whenever provided for by statutory law, enforcement mechanisms are often absent (FAO, 2002; Bayisenge et al., 2015). Women constituted, approximately 13% and 25% of sole land owners and joint land owners respectively in sub-Saharan African countries, in 2016 (Gaddis, 2018). Deininger et al. (2017) reported female ownership at 18% in Ethiopia, 45% in Malawi and 28% in Uganda. However, female ownership was only 3.1% in Mali in 2004 (Doss et al., 2015). In 2005, women in Kenya owned only 5-7% of the registered titles (Ik Dahl et al., 2005). Only 4% of land is owned by women in Nigeria (Hull et al., 2019). Women in Tanzania were estimated to own only about 19% of titled land in 2005 and their average land holding size was less than half that of men, ranging from 0.21-0.30 hectares compared to 0.61-0.70 hectares for men (Ellis et al., 2007)¹.

Local and international agencies have been intervening to improve gender land ownership rights (Deere and Leon, 2001a; UN-HABITAT, 2007; UN, 2013). Interventions include revising legal provisions to recognise joint titling² for couples (UN-HABITAT, 2007). Some of the African countries where joint titling for marital couples is allowed by law include Swaziland, Mozambique and Tanzania (UN-HABITAT, 2006).

Many land titling programmes have made co-titling between spouses a requirement (Ayelew et al., 2005). Although titling has been recommended to ensure women's names are included in the title documents for matrimonial property, titling programmes, in their design and implementation, have generally not targeted women (UN-HABITAT, 2006). The rates of joint ownership are often lower than expected after implementation of the titling programmes (Deere & León, 2001b; Collin, 2013; Ali et al., 2014). Joint ownership by married couples is still uncommon (UN-HABITAT, 2007) in some countries with joint land ownership accounting for 5%–6% of registered titles in Kenya (Kenya Land Alliance, 2014), 17% in Ethiopia (in 2012), 0.6% in Malawi (in 2011), 2.9% in Niger (in 2011), 5% in Tanzania (in 2011) and 10% in Uganda (in 2010) (Doss et al., 2015).

¹ That size of land is common in rural land, the plot size in unplanned settlements in urban areas may be even less than 100 square meters

² In this study co-titling and joint titling are used interchangeably

Land in Tanzania is considered a primary asset. It is mostly owned by men despite many land laws recognising women's rights to land. Co-titling was expected to attract couples to own matrimonial property jointly, however, the reality is that the number of spouses owning land jointly is insignificant in land titling programmes (Ali et al., 2013). In some cases of land formalisation in Tanzania, women have made up as little as 2% of registered land rights (Wegerif, 2015). The experience in Tanzania is not very different from what is reported in many other developing countries that have adopted joint-titling policies intended to shift household bargaining power in favour of women.

To further understanding in this area, this paper assesses the desirability of co-titling of matrimonial property using evidence from a land regularisation programme implemented at Makongo Juu settlement in Dar es Salaam City, Tanzania between 2015 and 2019. The regularisation programme was one of the projects in Dar es Salaam that aimed to improve informal settlement land tenure security. The programme entailed surveying and issuing land titles to the land owners. The study also explores various initiatives aimed at promoting co-ownership of matrimonial properties and analyses limitations to co-titling.

There is a knowledge gap in the existing strands of literature on the link between regularisation and gender issues. The paper adds knowledge to the studies aimed at addressing gender inequality in land ownership. It reveals the opportunities that regularisation programmes can provide women in pursuit of their land rights. The paper makes a case for joint ownership of matrimonial property, which is key to women's economic empowerment.

2. Background

In many countries, co-titling and registration are uncommon, even where mandatory due to customs and traditions (UN-HABITAT, 2006). Despite mandatory joint titling, women have failed to exercise control rights over land (Deere & Leon, 2001a). In Africa, joint ownership of land does not necessarily mean that men and women have equal rights over the land (Doss et al., 2015). Lack of gender equality principles and mechanisms for joint tenure have contributed to continued male dominance in land ownership (Holden & Bezu, 2014). Evidence shows that homeownership in developing countries is generally male dominated (Adu-Gyamfi et al., 2019).

Oxfam (2018) reveals that, although land titling provides an opportunity to address inequality in land ownership, progress remains limited in Tanzania due to the low level of awareness of pertinent laws and patriarchal tendencies. Collin (2013) notes that while many developing countries have adopted legislation to reinforce gender equality in property ownership, the de facto state of women's right to land often remains unchanged; formal land ownership is vested in men. Women in many patrilineal societies in Tanzania are considered to be the property of men, they do not own any resources even from their father's home and they are not provided with land (Asantemungu, 2011).

Recent discussions of the continuing efforts toward gender equality in land ownership show that lack of awareness of policies, programmes and implementation processes play a significant role in undermining existing efforts (Ik Dahl et al, 2005; UN-HABITAT, 2007; Durand-Lasserre & Selod, 2009; Hallward-Driemeier & Tazeen, 2013; Rakodi, 2014; Bayisenge et al., 2015). UN-HABITAT (2006) finds out that there are several common issues and conflicts in legislative frameworks at the country level regarding joint titling, joint registration, and assurance of women's rights to land and property. Very often legislation does not address or reflect issues related to traditions and customs at the household level, which have a much greater effect on women than on men.

Existing literature shows an outcry that women's land rights in Africa are not well protected because of archaic laws and African traditions and customs that, in large measure, favour patrilineal interests more than women's land rights (Magawa & Hansungule, 2018). In a few African countries, laws provide for co-ownership of marital property such as the family home or other assets, however, these laws have proven very difficult to enforce because they go against the grain of cultural practice (Joireman, 2008). The idea of a woman acquiring property in her own name during marriage is incendiary as it implies that she is not committed to the husband or his family (Joireman, 2008). To be effective, provision for the joint allocation and titling of land to couples must be mandatory rather than optional (Deere & Leon, 2001a; Hallward-Driemeier & Tazeen, 2013; Rakodi, 2014). Without the support of a mandatory joint tenure law, in many cases women within a marriage will not be able to own land, because customary or religious laws subordinate women to men in the household and vest property rights in men (UN-HABITAT, 2007; Leavens & Leigh, 2011; Hallward-Driemeier & Tazeen, 2013).

Although joint titling is encouraged and may be practised, property rights and tenure security of those living in male-headed households are determined not only by the formal laws but also by social customs (Radoki, 2014). Some strands of literature highlight a number of challenges of joint ownership by married couples. For instance, its enforcement is still often dependent on customs (Giovarelli et al., 2013), joint tenure rights can be adversely affected by legal regulations, customary or religious practices and norms, gaps in legislation, and poorly implemented laws (UN-HABITAT, 2006).

Tanzania is one of the countries in Sub-Saharan Africa that have implemented gender sensitive land reform. Land regularisation is one of the components of land reform and it is aimed at formalising land ownership titling and strengthening tenure security in informal settlements. However, there is a mismatch between the laws and practice. According to Ali et al. (2013), despite many land formalisation programmes making joint titling between spouses an option in Tanzania, the response is still very low. The authors also note that land titling programmes generally report a low inclusion rate of women as co-owners. The legal framework in Tanzania supports joint ownership of land between women and their husbands. There are several

pieces of legislation advocating for co-titling in the country. The Law of Marriage Act No. 5, Cap 29 of 1971 recognises joint efforts of spouses in the acquisition and maintenance of a matrimonial property. The law entitles the wife to possess a share in the matrimonial property based on her services rendered through performing household chores during the subsistence of a marriage relationship (Magawa & Hansungule, 2018). Section 59 of the Act, Cap 29 supports co-titling by detailing ownership of matrimonial property, including land, which can be owned jointly by spouses. The Act stipulates that interest in a matrimonial home is owned jointly and that a spouse is not allowed to alienate it by way of sale, gift, lease, mortgage or otherwise without the consent of the other spouse. Such right is protected by caveat, caution or otherwise under any law for the time being in force relating to the registration of land title. In addition, sections 159 (8) and 161 of the Land Act No. 4 of 1999 clearly stipulate co-ownership of land for spouses. It is worth noting that in Tanzania, religious tenets may still influence the desirable mode of land ownership between couples. For instance, in Islamic law a man with two or more wives is allowed to apply for a co-title, with all of the wives enjoying equal rights. However, for Christians, only a husband and one spouse can apply for a co-title.

Although the Land Act provides husbands and wives with equal shares in marital property and requires spousal consent for transfers, it appears that in the absence of both names being recorded on titles, these provisions are not respected (Rakodi, 2014). A large number of women's groups in Tanzania³ have played significant roles in promoting gender sensitive land reform. These reforms include the enactment of Land Acts in 1999, which explicitly allow for joint titling among spouses. In an effort to improve tenure security for land owners, regularisation programmes were introduced in the aftermath of the Land Act and Village Land Act of 1999. The initiative, whose key objective is to formalise land ownership in informal settlements through issuance of residential licences or certificates of title, has emphasised on the protection of women's land rights (Ikdahl et al., 2005; Chiwambo, 2017). Exploring ways of making land titling schemes more gender inclusive in Tanzania, Ayelew et al., (2005) revealed that very small subsidies are capable of inducing households to include women in formal land ownership when applying for land titles. These programmes have positively influenced women's attitude towards strengthening their land rights, leading to their increased involvement in land-related decision making (UN-HABITAT, 2006), household decision-making (Doss et al, 2014), greater security and bargaining power (Datta, 2006), and safeguarding and empowering women during and after marriage (Holden & Tefera, 2008; Rakodi, 2014).

Land regularisation in Makongo Juu aims to identify, record, group and register land rights and interests for the population currently occupying land

³ These include Tanzania Women Lawyers Association (TAWLA), Tanzania Gender Networking Program (TGNP), Tanzania Women Media Association (TAMWA), Land Tenure Study Group (LTG), Gender Land Task Force (GLTF), Women Advancement Trust (WAT), Women's Legal Aid Centre (WLAC) Women in Law and Development in Africa (WiLDAF) and HakiArdhi

in the neighbourhood. Land owners have their plots surveyed and titles processed and, in exchange, they willingly release part of their land to be used for providing social services like access roads. Education provided before land regularisation programme implementation is expected to attract many couples to own land jointly because studies have found that women are often not aware of their statutory land rights (Kongela, 2020).

Despite legal reforms, even where joint tenure is permitted, it is common for relatively few titles to be registered in joint names (Rakodi, 2014). Evidence of the impact of joint titling on women's outcomes is limited (Ali et al., 2014). Although Tanzania is among the developing countries with gender sensitive land ownership legislation and implementation programmes, women are not exercising their rights. Single land titling in men's names only is still dominant. The aim of this paper is, therefore, to seek to understand the factors that explain the low desirability of co-titling despite the efforts to legislate and promote it in order to enhance female spouses land rights.

3. Methodology

This study draws its findings from Makongo Juu settlement in Dar es Salaam. The settlement is located about 17 km northwest of Dar es Salaam City centre. Makongo Ward had a population of about 15,700 people in 2012 and was growing at an annual rate of 4.3%, according to the National Population Census (URT, 2012). The neighbourhood is largely unplanned and has a diverse population comprising mixed income households of different ethnic groups with varied traditions and beliefs. Makongo Juu settlement was selected for study because land regularisation and processing of land titles was ongoing. Makongo Juu settlement used to be unplanned and the majority of the residents used to occupy land without land titles. The regularisation programme entailed surveying and issuing of certificates of title to the land owner, which enhances tenure security. Land owners in the settlement were also educated on gender issues in land ownership, which made it possible to obtain relevant data about co-titling among spouses. The regularisation programme at Makongo Juu, which started in 2015, adopted a participatory approach. The project was designed and undertaken mainly with property owners' interests at the centre, incorporating their full involvement from the inception of the project. The residents formed a local regularisation committee, namely KAUMAMA, to oversee the project. The committee engaged a team of technical staff from the Ministry of Lands, Housing and Human Settlements Development (MLHHSD) and Kinondoni Municipal Council. The team was stationed at Makongo Juu and was involved in land title applications processing on site.

The data was gathered from key informants among government officials, local leaders, CSO and KAUMAMA officials and married couples. Data collection was done in two phases. The first phase was a pilot study that involved interviews with a small group of land owner couples, government officials, local leaders and CSO and KAUMAMA officials. The interviews were conducted to develop, test and refine the questionnaire for the broader

project. Interviews with the key informants were conducted between June and September 2019 and the questionnaire was administered between October 2019 and January 2020. As provided in literature (FAO, 1997; Perneger et al., 2015), normally a small number of respondents is selected for pretesting a questionnaire. Creswell and Creswell (2018) note that qualitative data needs to be collected from a small sample prior to designing a survey instrument for a large sample. Apart from ensuring accuracy of survey instruments and the quality of the data collected, the interviews also enabled the researchers to gain an in-depth understanding of the research issue, participants' perceptions and other important issues surrounding co-titling during the implementation of land regularisation programmes before designing the final questionnaire.

Using a register of residents maintained by KAUMAMA and the local government, a purposive sampling technique was used to select 6 couples to participate in the pilot study. The spouses were interviewed separately to obtain self-disclosure of facts evolving co-titling from each spouse. The couples invited to participate were considered the best fit because their properties were considered in the regularisation programme; therefore they were expected to understand the research issue. There was one couple who were in a polygamous marriage. For the intention of having sets of married couples in the study, the sample included only the male and one female spouse who was willing to take part in the interview session. All face-to-face interviews were conducted at the couples' homes. Local leaders were selected based on the rich information they possessed, their roles as leaders and their involvement in the regularisation project. Two Kinondoni Municipality land officers who were in-charge of the regularisation exercise were selected along with the land officer from the MLHSD who was in charge of the project. One CSO officer was included because CSOs had conducted a number of awareness creation sessions on gender issues in land ownership in the neighbourhood in the form of meetings, community conversations and seminars. Two members of KAUMAMA who were members of the local regularisation committee stationed at Makongo Juu were also interviewed.

Three sets of interview guides were developed for discussions with the key informants. The first one was for the land and CSO officers and it consisted of 13 open ended questions seeking their opinions about the legal position of spousal co-ownership, benefits of co-titling, the couples' attitudes about and response to co-titling and efforts to encourage co-titling. The second guide for the local government and KAUMAMA officials consisted of 16 open ended questions similar to those asked to land officers and a CSO officer and three additional questions designed to obtain their opinions about the efforts in place to encourage and educate spouses to opt for co-titling, the success of the efforts and the preferred mode of land ownership among spouses. The interview guide also sought to establish officials' opinion of spouses' willingness to co-titling. The third interview guide, which was employed for the 12 spouses in the pilot study differed significantly from the other two in that it focused on their personal opinions and experiences on reaching the decision regarding the preferred mode of land ownership. It examined couples' awareness of legislation relating to co-titling; willingness for co-

titling; significance of co-titling and benefits and constraints for accepting co-titling. The responses to the open ended questions from the key informants in the pilot study were used to develop the final questionnaire (open and closed ended question) for survey phase.

The survey phase consisted of data collection through a questionnaire administered to a larger sample of land owner couples in the area. A random sample of 65 couples was selected from the register of residents maintained by KAUMAMA and the local government. The same questionnaire was administered to each spouse individually. Of the 130 questionnaires distributed to the couples' homes, 118 were completed and returned, which is about a 91% response rate. Although each respondent had to fill in the questionnaire independently, many female spouses did not want to fill in the questionnaire in the absence of their husbands, which necessitated multiple visits to households. This merely serves to highlight the need for research on women's spousal rights.

The findings from the two phases of data collection were then integrated during the data analysis phase. Qualitative data analysis was through thematic analysis while percentages and a chi-square were used for analyzing quantitative data. The chi-square test was used to analyse the significance of the difference in the distribution of the men's and women's answers on Likert scale questions.

4. Results

The results provide an assessment as to the officials' awareness of legislation relating to co-titling, institutional efforts towards co-titling, initiatives taken by CSOs in providing awareness and education on joint land ownership based on the interviews with the informants. Analysis of survey data is used to determine the significance of co-titling to couples, the extent of desirability of co-titling, benefits of co-titling and constraints for acceptability of co-titling among couples.

4.1. Awareness of Legislation Relating to Co-titling

Analysis of interviews and survey data revealed a range of awareness of the legislation related to co-titling. For instance, one local leader was completely unaware of the provisions of the law on co-titling while another one had little knowledge about it. This suggests that local leaders who were directly involved in the process were not knowledgeable of legal land rights as to the co-titling of land among couples in community-led regularisation project. Meanwhile, the land officers and a CSO official interviewed were fully aware of the legal position on co-ownership of land for spouses. The questionnaires similarly established a divergence of understanding amongst the land owners. The majority of spouses (78.0%) had little awareness of the existence and applicability of the joint property ownership option for spouses. The problem was more pronounced among female spouses than male spouses. Of the 59 female spouse respondents, 64.4% were totally unaware of the possibility of

having co-titles in land ownership whereas the remainder were only slightly aware. The majority of male spouses (64.4%) were aware of the possibility of owning land jointly; however, only 17.0% of them were willing to opt for that type of land ownership.

Only 13.6% of male spouses indicated that they were totally unaware that a woman's name could be put on a certificate of title. Thus, males have greater awareness of co-titling opportunities. This is in line with UN-HABITAT (2006) who reports that one of the constraints to women being granted land titles under the titling programme in Honduras was lack of awareness of their rights to have titled land jointly with their spouses. Even Durand-Lasserre and Selod (2009) found that two-thirds of respondents were unaware of the land titling law in Greater Accra, Ghana.

Further analysis of the significance of the difference in the distribution of the men's and women's awareness level using a Chi-square test is shown in Table 1.

Table 1: Awareness Level of Co-titling

| | Aware | Slightly Aware | Unaware | Total |
|---------------|----------|----------------|---------|-------|
| Men | 38 | 13 | 8 | 59 |
| Women | 0 | 21 | 38 | 59 |
| Total | 38 | 34 | 46 | 118 |
| <i>Chi-Sq</i> | 59.45 | | | |
| <i>p</i> | 1.2E-13* | | | |
| <i>N</i> | 118 | | | |

Note: * $p < .05$.

Source: Author Analysis, 2020

Results in Table 1 imply that respondent's gender has a statistically significant relationship with land law awareness. Female spouses lack awareness of legislation relating to land ownership and co-titling compared to male spouses. This is in line with Rakodi (2014), who finds that few women are aware of their rights or of the benefits of joint registration. One explanation for this study finding could be literacy; 79.7% of males were literate compared to 47.5% of the females.

4.2. Impacts of Existing Efforts Towards Co-titling

It was clear from the interviews with land officers from the MLHHS and Kinondoni Municipality that the government and its institutions are actively engaged in the promotion and enforcement of the gender equality provisions of the Land Act No. 4 of 1999. One of the efforts is promotion of joint ownership of property among married couples. Land officers reported that they insist that the spouses agree on the name(s) to be recorded on the title when handling title applications for matrimonial properties. In case of disagreement between the spouses, an application is put on hold until the matter is resolved. The three land officers reported that, in all cases, it was

the female spouse who was denied having her name included in the title application. This shows that the government and its institutions are keen to ensure that co-titling is promoted, especially for matrimonial properties. The informants believe the institutional efforts have been successful in ensuring women's land ownership rights are protected. However, it was noted that in practice, the government cannot force spouses to agree to co-own land.

Although land officials reported few cases of disagreement on the mode of land ownership among couples, 46 of the 59 female spouses were interested in having co-titles but mentioned that they were denied the opportunity by their husbands. Of the 46 female spouses who were denied the ability to own property jointly by their male spouses, 28 had not reported the matter to the government authorities for further actions to be taken. The other 13 female spouses reported no resistance from their male spouses but they saw no problems having title under their male spouse's name.

4.3 Initiatives by CSOs to Create Co-titling Uptake

CSOs are crucial at different levels and stages of land rights and housing programmes. The pressure of CSOs to legally recognise women's land and property rights has resulted in important reforms of land, family, inheritance, and housing laws (UN-HABITAT, 2006). Out of more than 300 CSOs operating in Dar es Salaam, about 17.0% focus on empowering women in securing their rights, especially access to land and decision making (FCS, 2018). However, as observed by Asantemungu (2011), these rights were mostly violated under the "umbrella" of culture. To influence residents and achieve acceptance of co-titling, CSOs undertook efforts such as awareness creation programmes, education, seminars and legal aid provision. The efforts by CSOs in facilitating awareness of co-titling in the case study area are summarised in Figure 1.

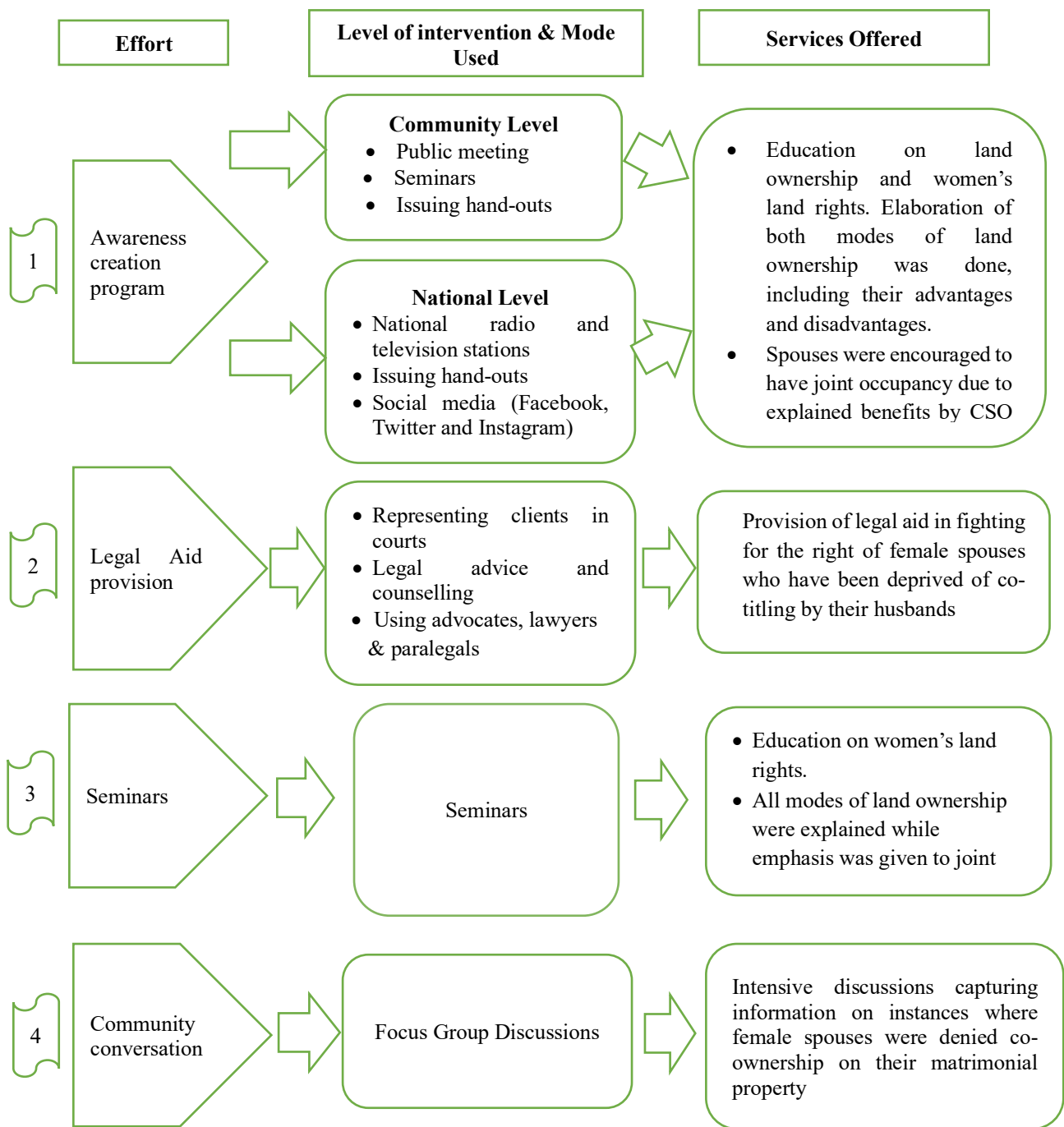


Figure 1: CSO Efforts in Facilitating Awareness of Co-titles among Couples in Makongo Juu

Source: Author's conceptualisation, 2020

The CSO official interviewed played a role in ensuring gender sensitive land rights by providing education and legal aid. The participants in the CSO programmes were educated on various modes of land ownership and couples were encouraged to apply for joint occupancy (co-ownership) for their matrimonial properties. However, the CSO official acknowledged lack of willingness of male spouses to agree to co-own. The informant noted that co-

titling was highly constrained by patriarchal norms. The officer had this to say regarding co-titling for couples:

“Whenever one is talking about co-titling, one is referring or considering the aspect of women empowerment on land ownership”

Interview conducted with CSO Official on 12.09.2019 at Makongo Juu.

The survey revealed that 83.1% of the respondents were unaware of the basic legal procedures of owning land jointly before the regularisation programme in their neighbourhood. The CSO targeted to have 1,500 people (about half of the population) under the regularisation programme attend awareness creation programmes through meetings, seminars and conversations; however, only 54.1% of the target participants managed to attend. The participants were issued with handouts that explain gender land rights and aspects of co-titling. Other handouts were kept at the local government offices for the entire population to access. Legal aid and community conversations between the CSO officer and the participants were used, but were not very effective according to the CSO officer. The CSO judged the efforts for creating awareness on co-titling as satisfactorily accomplished based on reaching more than 50% of the targeted participants. The efforts made by CSO strengthened awareness about co-ownership among some spouses. A majority of spouses in this study were unaware of co-titling before the regularisation programme; however, more than three-quarters of those who attended the meeting and seminars and participated in community conversations gained little awareness of co-titling and regarded the activities of CSO to be effective in creating awareness.

4.4. Significance of Co-titling in Urban Land Ownership

The couples had varied perceptions regarding the significance of co-titling, which was noted to be highly influenced by the gender of the respondents. Results show that majority of the couples surveyed (60.2%) agree that co-titling in land ownership is important. Only 33.6% of the male spouses appreciate the importance of owning land jointly while the majority of female spouses (89.8%) regarded it as an important way of owning land for couples.

A chi-square analysis of the significance of differences in opinions about the significance of co-titling in ownership of a couple’s property is presented in Table 2.

Table 2: Respondents’ Opinions on the Significance of Co-titling

| | Highly significant | Significant | Low Significance | Not Significant | Total |
|---------------|--------------------|-------------|------------------|-----------------|-------|
| Men | 10 | 8 | 20 | 21 | 59 |
| Women | 31 | 22 | 6 | 0 | 59 |
| Total | 41 | 30 | 26 | 21 | 118 |
| Chi-Sq | 45.83 | | | | |

| | | |
|----------|--------------|--|
| <i>P</i> | 6.17005E-10* | |
| <i>N</i> | 118 | |

Note: * $p < .05$

Source: Author Analysis, 2020

It implies that opinions about the significance of co-titling in property ownership are significantly different among men and women. Female spouses accorded higher weight to joint land ownership than the male spouses.

4.5. Preferences for Co-titling

As presented in Figure 2, analysis of the questionnaire responses revealed that only 27.1% of males, compared to 69.5% of females desired to own land jointly. This illustrates the contrast between men's and women's opinions about the desirability of co-titling. Almost three-quarters of men did not desire such ownership.

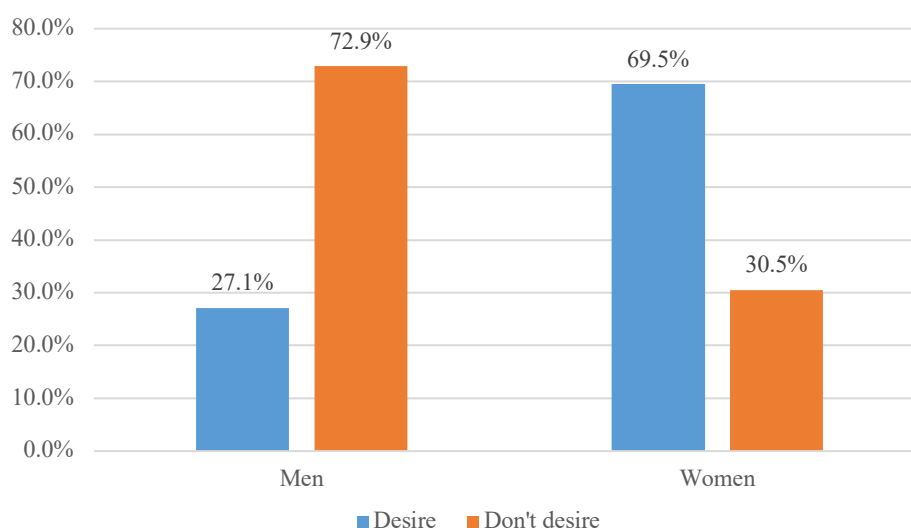


Figure 2: Co-Titling Desirability Among Couples

Source: Author Analysis, 2020

Note: $N=57$ Male; $N=59$ Female

Figure 3 provides the mode of land ownership decided on by the sampled couples during title application at Makongo Juu. The figure shows that the majority (69.5%) of couples titled land ownership in the name of men only, 15.3% in only women's names, and only 10.2% were co-owned by spouses. Byabato (cited in Mattingly, 2013) observes that about 90% of properties were registered in the husband's name and there were no joint registration of husband and wife in two planned neighbourhoods of Dar es Salaam, Tanzania in 2005. It is interesting to note that our study's results are not that different from rural land formalisation programmes in Tanzania. For example, a study carried out in Bulongwa Village in Makete District (Moyo, 2017) indicates 55% of residents who applied for a Certificate of Customary Rights of Occupancy (CCRO) were men, 27% were women, and the remaining 18%

were for joint occupation. Meanwhile, the experience in the ongoing regularisation programme shows that only 3.2% chose joint ownership by spouses while 73.5% chose men only, and 21.1% women only title arrangements according to the Office of KAUMAMA and Kinondoni Municipality. The mentioned studies show that the trend of inclusion of women as co-owners differs among regularisation programmes. Although the findings are from different population sizes and settings, there is slight increase in women's inclusion in titles. The study shows that, despite having provisions of the law to allow joint land ownership, that mode of land ownership was generally not put into practice by the majority of land owners in the study area; many titles are still issued solely in the names of husbands. So, low co-titling response could be due to lack of knowledge, although even after education co-titling response is still low, suggesting that comprehensive programs are needed from government institutions instead of leaving the task to be performed mainly by CSOs.

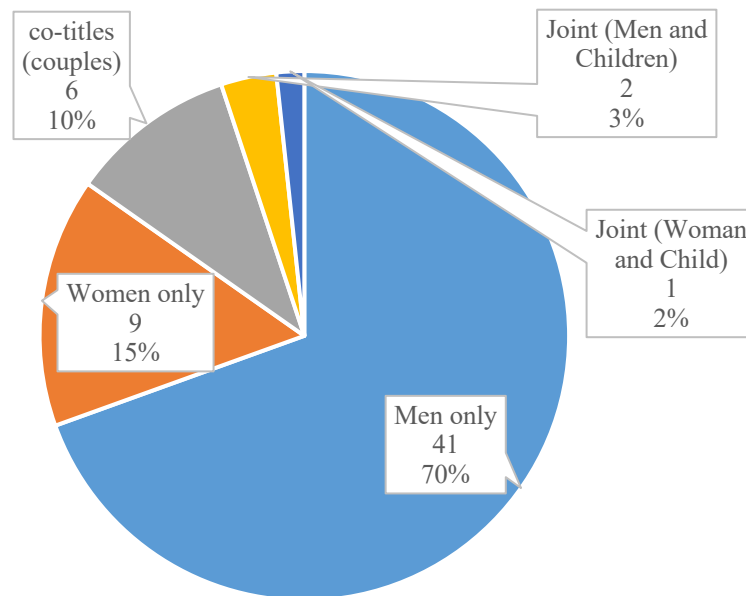


Figure 3: Land Ownership Modes Among Couples

Source: Author Analysis, 2020

Note: N=59 Male; N=59 Female

The study explored the reasons behind the low desirability for co-titling among male spouses. They cited various reasons why owning land jointly is undesirable, as shown in Figure 4. It appears that deprivation of individual rights is the main reason for male spouses not favouring co-ownerships. Others were afraid that division of properties after divorce would be expensive, which is triggered by the bureaucracy in litigation and loss of value as a result of sale proceeds sharing. The majority of male spouses revealed that the reluctance of their female spouses to agree on granting a spouse's consent when it comes to taking a mortgage is a challenge. The majority insisted that the problem is more prominent when the decision of mortgaging a property was preceded by certain conflicts in a marriage. It was

also observed that some male spouses were afraid that the right of survivorship might be misused when they die, especially when the widow decides to marry another man. A smaller number of male spouses believed women tend to be disrespectful once they know that they have equal land ownership rights with their husbands. Land officers and CSO official concurred with most of the arguments put forward by male spouses as undesirable about co-titling. Misuse of the right of survivorship by female spouses when male spouses die was the main undesirable thing about co-titling that was accorded higher weight by land officers.

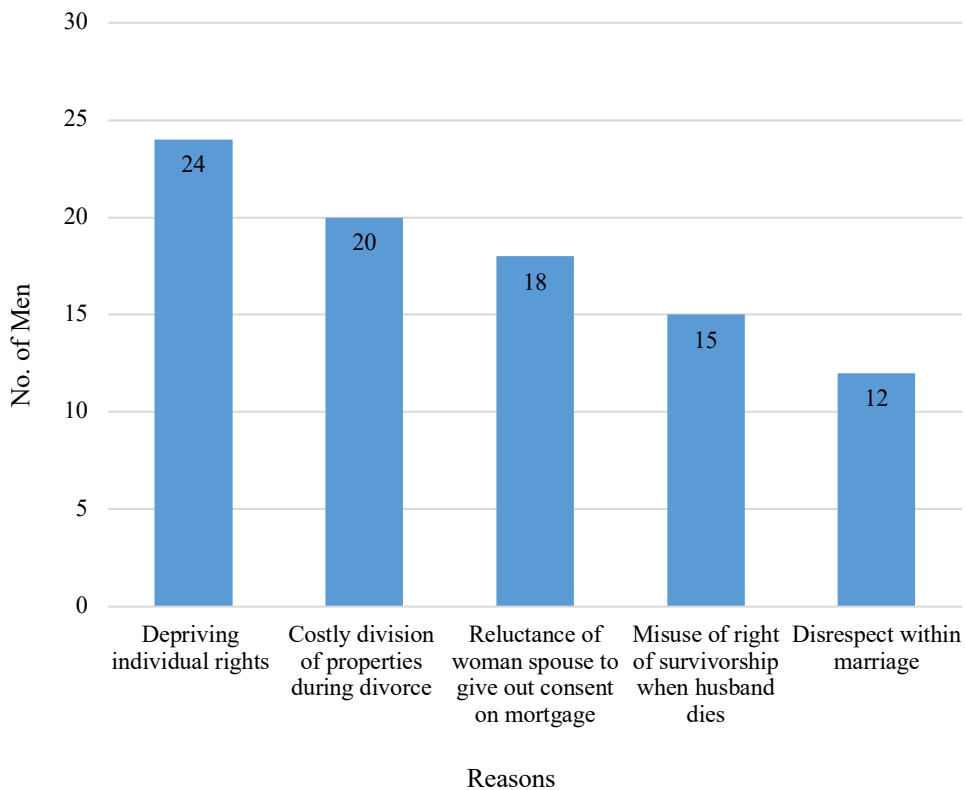


Figure 4: Reasons Male Spouses Think Co-Titling is Undesirable

Source: Author Analysis, 2020

Note: N=59 Male

4.6 Benefits and Constraints for Acceptance of Co-titling

Key informants and survey respondents cited benefits and constraints of co-titling. Analysis of the benefits of co-titling from the key informants revealed that although co-titling is still unpopular among couples, it has had positive impacts for couples. One local leader had this to say:

“If couples own land jointly it will be easy for women to continue occupying their matrimonial properties after the death of their husbands, the reported cases of widows being evicted are increasing.”

Interview conducted with a local leader on the 21st September, 2019 at Makongo Juu.

When the couples were asked whether men and women should be treated as equal in owning land, all female respondents were in support of the idea while only a quarter of the male respondents were in agreement. The couples' perceived benefits of co-titling are summarised in Figure 5. While more than 90% of female spouses mentioned economic empowerment as the main benefit of having co-titling, male spouses accorded it little weight (20.3%). Enjoyment of right of survivorship was ranked the second most common benefit followed by intra household decision making. Benefit of having freedom in intra household decision making was also cited by Doss et al. (2014) who revealed that, in Tanzania, women who report joint ownership of land are more involved in household decision-making. Although only 3.4% of male spouses saw equality in division of property in case of divorce as a benefit, more than 60% of female spouses mentioned it as a benefit. This is in line with Holden and Tefera (2008) who observed that joint titling tends to strengthen women's position in cases of divorce and death of husbands.

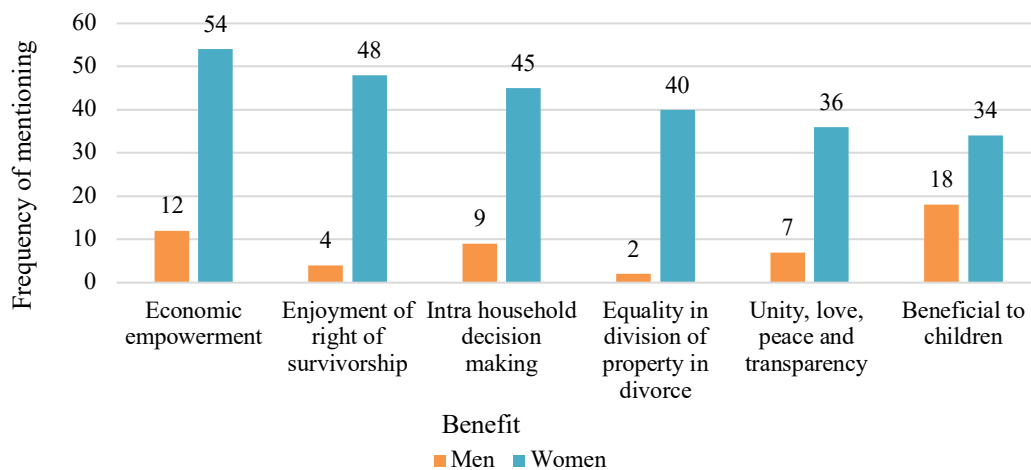


Figure 5: Benefits of Co-Titling

Source: Author Analysis, 2020
Note: N=52 Male; N=54 Female

Respondents also cited some constraints of land co-ownership among spouses. Table 3 shows the constraints as cited by respondents. The two major constraints identified are lack of transparency and marriage conflicts. It would appear that it is difficult to have joint spousal land ownership supported amidst mistrust, fear, secrecy and conflicts in a marriage. The need for individual freedom was also cited as a constraint, mainly by male respondents. Some male spouses stated they did not want to share proceeds from land transactions when leasing or selling a property. Others reported that spouses faced challenges when planning to undertake development activities involving jointly owned properties as it required spouses' consensus on any decision with respect to any transaction involving the subject land.

Table 3: Constraints for Acceptability of Co-titling

| Constraint | Male | Female |
|---|------|--------|
| Lack of transparency | 11 | 20 |
| Marriage conflicts | 24 | 7 |
| Lack of individual freedom | 18 | 5 |
| Name that should appear as title holder | 7 | 5 |
| Low awareness of co-titling | 5 | 6 |
| Patriarchal society | 3 | 8 |
| When and who pays for land acquisition | 8 | 2 |
| Polygamous marriage | 2 | 6 |
| Ignorance | 2 | 4 |
| Relatives and peer pressure | 1 | 3 |
| Myths about women | 1 | 0 |

Source: Author Analysis, 2020
Note: N=56 Male; N=54 Female

Spouses had different views on whose name should appear in titles. Most male spouses preferred only their names to appear on the land title, whereas some female spouses preferred the title to bear the names of their children. Responses from these female spouses seemed to be aligned with the *'invisible hand'* metaphor implying that they would enjoy ownership right through their children.

Lack of awareness of the existence and applicability of joint property ownership for spouses as described in Table 3 was cited as a barrier to co-titling by 11 respondents. Lack of awareness of rights is a barrier to female spouses to initiate the move towards co-titling. Another 11 respondents cited the patriarchal system as a barrier to co-titling. This is not surprising since more than 70% of the tribes in Tanzania follow a patriarchal system (Hodgson, 1999). In such a system, males are regarded as heads of households having a final decision, hence having mandate on household assets including land. Regarding decision making on the mode of land ownership among couples, about 65% of female respondents stated that men were normally the ones who decided on the mode of land ownership while about 90% of male respondents reported that they are the ones who are responsible for decision making. Female spouses revealed that their ownership rights would have been deprived even if joint spousal land ownership was an option mainly because of the patriarchal attitudes that recognise the man as the head of household. One of the interviewed female spouses had this to say:

“Even if we apply for joint land ownership, my husband will never give me a portion of rental income from our property as I’m regarded as his dependent”
 Interview conducted with a female spouse on the 12th September, 2019 at Makongo Juu.

It is common for men to keep the income in the family even if it is generated by a woman. Leavens and Leigh (2011) and Moyo (2017) made similar observations regarding gender income sharing among couples. However, that

is contrary to Section 56 of The Law of Marriage Act, 1971, which presumes that the spouses have equal beneficial interests towards the land registered under both names. Both male and female spouses agreed that land acquired or even a building constructed by one spouse before marriage was much harder to be co-owned. Similarly, if it happened that the costs related to land acquisition were paid by male spouses, female spouses were seen not to deserve to own it jointly. The observation that property acquired in the name of a husband belongs solely to him was also noted by Leavens and Leigh (2011). Furthermore, some couples described that the mode of acquiring land such as inheritance and gift created hindrance on the acceptability of co-titling among couples. For instance, land acquired by inheritance by a female spouse was regarded to be under co-ownership with the male spouse and not her property, which is contrary to section 60(a) of the Law of Marriage Act, 1971, which states that:

“Where during the subsistence of a marriage, any property is acquired in the name of the husband or of the wife, there shall be a rebuttable presumption that the property belongs absolutely to that person, to the exclusion of his or her spouse”.

One of the female spouses had this experience to share regarding land given to her as a gift during her first marriage:

“A piece of land was given to me as a gift from my uncle, but it was on my name. My previous husband tried to convince me to put it into a joint ownership but I refused, due to that decision, we entered into a serious conflict which led to my divorce a few years ago”

Interview conducted with a female spouse on the 12th September, 2019 at Makongo Juu.

In line with the argument above, Leavens and Leigh (2011) observed that Tanzanian statutory law provides for women to retain and control their own property whether it is acquired before or during marriage. The law assumes that where any property is acquired during marriage in the name of either spouse, the property belongs absolutely to that person. However, this provision most often works against women.

Neither of the two female spouses who were in polygamous marriages were interested in co-titling. To them it seemed unimaginable to have co-titles involving all wives or even with only one of them as it would attract conflicts. None of the male spouses mentioned disadvantages for not having joint ownership. This could be explained by the mode of land ownership as presented in Figure 3, whereby ownership under “men only” comprises a great share. More than three-quarters (78.0%) of female spouses revealed that they miss some advantages for not having joint-ownership of their matrimonial properties. The identified missing advantages by female spouses are presented in Table 4.

Table 4: Advantages Missed by Women not having Co-Titles

| Missing Advantage | % of Respondents |
|--|------------------|
| Accessing loans from banks/micro finance institutions | 59 |
| Enjoyment on property in case of divorce/death of husbands | 51 |
| Freedom in property related decision making | 31 |

Source: Author Analysis, 2020

Note: N=59 Female

A majority of female spouses (59.0%) mentioned that ability of accessing loans from banks and micro finance institution is the main missing advantage for not owning land jointly with their husbands. More than half of the respondents mentioned enjoyment on property in case of divorce/death of husbands as one of the missing advantage. More than one-quarter of the spouses cited freedom in property related decision making as another missing advantages.

5. Discussion and Conclusion

The findings show that majority of female spouses lacked awareness of the legal procedures and the possibility of owning matrimonial property jointly. Male respondents, on the other hand, were more aware but were resistant to accept joint ownership of matrimonial property with their spouses. Analysis also shows that a majority of female spouses were interested in obtaining co-titles for their matrimonial properties but faced resistance from their husbands. Although the number of female spouses in favour of co-titling compared to male spouses was higher, the number of co-titles applications was small. It seemed difficult for couples, especially male spouses, to accept joint land ownership unless the couples contributed monetarily in acquiring or developing the land. CSOs were perceived to be effectively involved in creating awareness, conducting community conversions, seminars and education regarding joint land ownership rights for couples. CSOs also provided legal aid whenever a female spouse reported a case of being denied her co-titling rights by her husband. However, although CSOs advocate for joint land ownership for couples, patriarchy norms were cited to be a main constraint in assisting female spouses.

Findings show that the majority of male spouses did not consider co-titling to be important while the majority of female spouses considered it to be important and good for married couples. The results seem to indicate that mainly men want independence and control. They also seem to be concerned with the financial aspects (land transaction costs, mortgages and divorce settlements costs). The government through the MLHSD and Kinondoni Municipality have been supportive in ensuring that female spouse ownership rights are protected. Co-titling is one of the avenues for achieving equality in property ownership, however, the identified constraints undermine the provisions of these laws. Awareness creation and education, especially among male spouses, to observe provisions of the law on gender equality and

to female spouses on the legislation advocating for gender equality in land ownership is paramount.

Due to the fact that co-titling strengthens women's land ownership rights, it is important that more initiatives are devised so as to enhance acceptability of co-titling amongst couples. Attaining a high level of desirability of co-titling requires strategies to address norms, customs and traditions constraining co-titling for couples. As laws support joint land ownership by spouses, awareness should be strengthened for spouses to appreciate advantages of owning land jointly and to adhere to these laws. However, challenges facing co-titling need to be addressed. Looking into co-titling as an avenue for women to own matrimonial property, this study contributes to studies on women's land rights to empower women economically. It also considers how co-titling can be used to address inequality in land ownership. Future research may be undertaken to assess interest in co-titling among couples who own multiple landed properties over and above a matrimonial property.

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Improvements in Women's Access to Rural Farmland: The case of Ile-Ife, Nigeria

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Abstract

The study investigates women's access to rural farmlands in Ile-Ife, Nigeria, in the context of land availability, affordability, tenure security and ease of transaction. A qualitative research design was employed. Purposive and stratified sampling were utilised to obtain data from four key informants and 13 rural women farmers in Ajebandele village of Ile-Ife, Nigeria. Themes emerged from the responses through content analysis. Findings revealed that women's access to land has improved over the past four decades. The study concludes that despite the improvements, gender equality had not been fully achieved as rural women farmers lack tenure security.

Keywords: Land Allocation Process; Gender Inequality; Land Affordability; Poverty Alleviation; Tenure Security

1. Introduction

Land remains an essential resource for rural and urban people, particularly in the developing countries where the majority of the population depends on agriculture for their livelihoods (FAO, 2011). Lastarria-Cornhiel and Frais (2009) asserted that land represents a valuable cultural resource, a productive factor and capital asset, and those who control land rights have a certain amount of power over those who do not, especially in rural agrarian economies. In most of Africa, agricultural landholding is governed by customary land tenure systems. According to Pottier (2005), the land was considered a resource that all community members should have access to for

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subsistence. The land is seen as communally owned, and access to land within the customary sector is primarily based on membership in a particular landholding community, kinship or birth right. However, it has been widely acknowledged that women do not have equal land rights to men under customary land tenure. Kameri-Mbote (2005) observed that women only have secondary rights to land use, which can only be gained through their male relatives. As a result, women's access to land is dependent upon a relationship with a male donor and can be denied if the relative so wishes. According to Landesa (2012), this situation leaves women and the households they manage economically and socially vulnerable, thereby weakening women's ability to address their and their children's livelihood needs and agricultural productivity.

Gender disparity in access to productive resources such as agricultural land has continued to be an essential concern, particularly in African rural communities. The customary systems have established inequalities of access to land for women despite women's involvement in and invaluable contributions to agricultural productivity. Duncan (2004) posited that women represent the more significant population in the informal sector, particularly in the agriculture sector. According to Kagwanja (2008), women in Africa contribute 70% of food production, accounting for almost half of all farm labour and 80-90% of hoeing, food processing, storage and transport. Nevertheless, women lack adequate access to land and are not involved in significant decisions about allocation and land use, thus strangling women's productive role and contribution to national development (Kameri-Mbote, 2005). Access to land in this study is defined as the right to use a parcel of farmland for agricultural activities, decide the type of crops to be planted and enjoy the proceeds from the farmland. The strength of access to land rights influences the incentive for food production and investment in farmlands (Schurmann et al., 2020). Women's limited access to land affects their commitment to productivity-enhancing investments, especially in the type of crops they can grow. Fon (2011) noted that most Cameroon women wanted to create plantations but were frustrated by the gender disparity regarding access to land. According to Kuusaana et al. (2013), the International Fund for Agriculture Development (IFAD) observed that women generally do not plant fruit trees on the land they are farming. After all, they could quickly lose their land and all its accrued profits because they only hold a secondary right to the land. Landowners may develop interest in the land when the economic trees mature and find reasons to dispossess women of their right to the land.

Meanwhile, despite the increasing recognition that women are deprived in terms of access to land, a few pieces of evidence suggest that women's access to land is advancing. Woodman (1985) earlier suggested that women have easy access to land in rural areas and that what is required is the ability and resources to cultivate the land. Duncan and Brants (2004) noted that access to land rights in Ghana generally has evolved from the family right (e.g. acquired through allocation and inheritance) to the individual right (e.g. through gifts, lease and purchase). Also, Bugri (2008) observed that customary practices under the patrilineal land inheritance system in north-

eastern Ghana are changing in favour of women and that access to land for livelihood needs is similar across genders. The reported progress in access to land rights can be attributed to the various land laws applicable in the study areas.

In Nigeria, the Land Use Act (LUA) of 1978 currently regulates land rights throughout the country. The Act vested the ownership of land rights in the state to ensure that all citizens (irrespective of gender) have equal access to land without impediment. The LUA provides for two systems of landholding: the customary (which applies at local government level) and statutory systems (applicable at the state level). Dabara et al. (2019) noted that under the customary system, land is predominantly accessed through inheritance where land ownership is handed from one generation to the next. Ile-Ife is a Yorubaland whose customary practice grants both men and women equal right to land. Also, “*women are allowed to inherit land in the Yoruba custom (from their fathers, husbands, sons, or other family members)*” (Ogbu & Iruobe, 2018: p.36). However, the extent of women's access to land in the study area's customary land allocation process has not been adequately documented. Therefore, it is unclear whether an intervention is required to ensure equitable land allocation as provided by the LUA.

This study is particularly important as the growing scarcity of land, due to land commercialisation, diminishes women's access to land and erodes their agricultural productivity. This is especially true in a community such as Ajebandele village where most of the farming population is female. Hence, based on the suggestion that women's access to land has improved over time, this study sought to investigate women's access to farmlands in Ajebandele village of Ile-Ife, Nigeria. Of particular interest was women farmers' access to land in the context of land availability, land affordability, tenure security and ease of transaction with the intention of providing information that could enhance the land allocation process. The research questions that this study sought to answer include: What is the customary land allocation process in Ile-Ife? What is the extent of women's access to land in the context of land availability, land affordability, tenure security and ease of transaction? What are the factors influencing women's access to land in the study area? The remaining part of the paper is structured as follows: the next section presents a review of related literature; section three presents the methodology adopted for this study; section four presents results and discussions and the last section presents concluding remarks.

2. Literature Review

2.1. Land Administration in Nigeria

Before 1978, Nigeria operated customary land tenure systems. The applicable customary law varied from one locality to another. Nigeria is ethnically diverse, with more than 250 ethnic groups. Oni (2014) posited that Nigeria has an even greater number of customary laws than ethnic groups because variations in customary law exist within an ethnic area. Nonetheless, one common characteristic across the customary systems before 1978 is that land

was communally owned with landholding units being the village, community, family and kinship. "*Individual grantee is held to possess usufruct rights over land granted him*" (Aluko & Amidu, 2006, p.3). The customary land tenure systems were characterised by discrimination against women in land matters. Women did not have equal land rights with men, thus subjugating women's socio-economic and political rights under men's domination. Aluko and Amidu (2006) observed that while women depended on their male relations for land rights, men did not depend on their relationship with women for land rights. Also, women faced dispossession threats if marital conflicts led to divorce or separation and at the death of a husband.

To address gender inequality in land access, among other problems of the customary systems, the state intervened through the promulgation of LUA on March 29, 1978. The Act was enacted to eliminate gender discrimination, thereby making land easily accessible to every Nigerian (man or woman) and to unify the tenure system in the country to ensure equity and justice in land allocation and distribution. Section 1 of the LUA vests ownership in all land within the territory of each state in the Governor of the state and such land shall be held in trust and administered for the use and common benefit of all Nigerians. The Act provides for the state government to grant a statutory right of occupancy in urban lands. Likewise, the local government is to grant a customary right of occupancy to rural lands. In addition, the Act established special land use boards known as Land Use and Allocation Committees (LUAC) at the state level and Land Allocation Advisory Committees (LAAC) at the local government level. These new authorities advise the state and local governments, respectively, on land matters (Chapter L5 Laws of Federation of Nigeria, 2004).

2.2. Women's Access to Rural Land

Government land policies tend to either increase or decrease farmers' access to land rights (Keovilignavong and Suhardiman, 2020). In traditional African society, customs and traditions remain significant challenges in effecting policies that support women's access to land in rural communities (Almaz, 2007). A study that examined the implementation of customary land policies in Amhara, Ethiopia, revealed that policies supporting women's equal access to land did not bring required changes at the community level (Askale, 2005). Fon (2011) reported that rural women farmers in northwest Cameroon do have access to arable land through their families, but women do not control that arable land. The result, which found no association between access to and control of arable land, further suggested that women lack tenure security. Bonye and Kpieta (2012) found that most women do not own land in the Upper East Region of Ghana because women do not sacrifice to the land spirits, a requirement for owning land in the region. Furthermore, Aasoglenang et al. (2013) found that women lack ownership, control and full access to land in Ghana's Chansa community. That lack of access makes it difficult for women to cultivate cash crops and invest in other projects that could significantly enhance their socio-economic status.

Adekola et al. (2013) revealed that men had more access to agricultural land than women in Ondo State, Nigeria. In addition, the majority of the men interviewed had the right to transfer land while none of the female respondents had such a right. Meanwhile, Odoemelam et al. (2014) reported that women in Abia State, Nigeria acquired land for cultivation mostly through matrilineal ties, other family ties, purchase and rental/borrowing but only occasionally through inheritance/gift. Most women were only allowed access to land to cultivate annual crops. Ajadi et al. (2015) investigated rural women farmers' access to productive resources among Nupe and Yoruba cultures in Nigeria. Results showed that men predominate in ownership of productive resources in Yoruba culture. Also, in both Nupe and Yoruba cultures, men decide almost all the farming activities.

In Ethiopia, Berhane and Miruts (2015) conducted a study premised on knowledge of the existing feudal and military system of land ownership, which restricts women's right to own land, and the feudal and military land ownership system's promise to eradicate the inequality in land rights. The findings revealed that the rural land administration system was not fully implemented because an equitable right to land was not recognised; registration, redistribution and land certification were done to favour men over women. Moyo (2017) equally found that a man's wife and a female child could not lay claim to the husband's and father's land, respectively, in the Makete District of Tanzania. Moyo reported that it is believed that the female child will soon be married off and will then be able to exercise her right to her husband's property. The study attributed the inequality practice in land ownership to the undeveloped state of Tanzania.

Further studies have explored women's tenure security and land rights. Prindex (2019) analysed the perceptions of tenure insecurity among women in 33 countries, including Benin, Kenya, Morocco and Nigeria in Africa. The primary indicator of tenure insecurity was the likelihood of losing the right to use a property against a respondent's will. The findings showed that gender differences exist in specific country contexts. Benin displayed a 6% difference in tenure insecurity; the highest among countries where insecurity rates were higher for women than for men. On the other hand, Nigeria displayed a 2% disparity between men's and women's perceptions of tenure insecurity. Ghebru and Lambrecht (2017) assessed tenure security based on the risk of losing land in the event of leaving it empty for several months. The findings revealed a strong association between gender and perceived tenure security in Ghana; male heads of household were generally more secure than female heads of household. In Nigeria, Odoemelam et al. (2014) reported that about 13% of women in their study were not allowed to retain access to land after a long fallow. Dabara et al. (2017) posited that tenure insecurity contributes to stagnating economic development among landholders.

Women seeking to obtain access to land may find the transaction is difficult. Moyo (2007) highlighted the constraints faced by women in applying for land, including bureaucratic constraints; gender biases within the selection structures, which are comprised mainly of men; lack of information on the

process; and low mobilisation of women's activist organisations around the issue of applications for land ownership. Enete and Amusa (2010) revealed that women in most farming societies face attitudinal barriers such as misconceptions that women farmers do not have basic farming knowledge and low self-confidence in making individual farming decisions. The International Organization for Migration (IOM) (2016) reported some of the challenges women face in accessing land. These include society's distrust in women's land ownership, perception about property misuse by women and harassment when women engage in land-related transactions, including buying and selling.

Researchers have suggested that several factors influence women's access to land in different study areas. Agana (2012) and Kuusaana et al. (2013) identified factors hindering women's access to land in Ghana to include common beliefs about ownership of land, customary rules on inheritance, the taboo forbidding women from performing sacrifices to ancestors, financial constraints and the high illiteracy rate among women. Dowuona-Hammond (2003) earlier posited that women's lack of access to land in Ghana is linked to women's higher poverty levels and other burdens. Chigbu et al. (2019) revealed other factors including marital status, health status, economic status and socio-political status. There were also cases where women contribute to their lack of access to land through 'their actions or inactions' (Chigbu, (2019).

Existing studies have shown that women generally have problems accessing land in the African context. Specifically, customary laws on access to land and inheritance do not support women's causes. While women were not entitled to land rights in some customary practices, others grant women farmers access to secondary rights in farmlands through their families. Therefore, this study intends to add to the discussions on women's land rights in Nigeria by investigating the extent to which the provisions of the Nigerian LUA advanced women's equal access to farmland in Ajebandele village, Ile-Ife, Nigeria.

3. Methodology

The study area is Ajebandele village, a rural settlement in Ile-Ife, Osun State, Nigeria. It has a population of about 600 (Deji & Solomon, 2020). The population of the community is comprised of different ethnic groups, most of whom are the Yoruba-speaking people. The residents are predominantly farmers growing cassava, yams, cocoa and maize at subsistence level. Ajebandele has vast arable land; the soil has a medium to fine texture and is mostly well-drained. The village is located within the tropical rain forest. The climate is characterised by two seasons; the wet season (April to October) and the dry season (November to March). Ajebandele village shares similar characteristics with other villages in southwest Nigeria. Villages in Yorubaland practice a customary land tenure system wherein the right to land ownership is held by a range of groups from the community, kinship or family. Ajebandele is a typical agrarian community with a higher number of

women farmers compared to men in the ratio of about three women to two men. According to the Baale (the traditional head) of the village, Ajebandele contains six communities with an average of 60 women in each out of the total village population of 600.

The study employed a qualitative research design. Data were obtained through fieldwork and consisted of a key informant interview with community leaders and a structured questionnaire and interview with rural women farmers. While the key informants were purposively selected, women farmers were selected using stratified sampling. First, the women were grouped into the six communities that made up the village. Next, women were randomly selected from each community. The sample's determination for this study followed the recommendations in Creswell (1998) that in qualitative studies, the required number of participants depends on when a point of saturation is reached. Thus, both groups of respondents were continuously interviewed until a point of saturation was reached. In all, saturation was reached with four key informant interviews and 13 women farmers (two women from each of the five communities and three women from the one remaining community). The 13th woman was required to achieve saturation. The key informants consisted of four of the six community heads in the village. They played a significant role in the allocation of customary land and were able to provide detailed and reliable information on the subject matter. On the other hand, the women farmers were chosen because they would be able to provide information on how they acquire land.

Data were gathered on the land allocation process operating in the study area in 2019 relative to the practice before 1978. Additional data were collected to ascertain the extent of rural women's access to land as well as factors responsible for women's inaccessibility to land. All interviews were conducted between October and November 2019 in the local language (Yoruba) through a structured interview guide. The research questions in the interview guide were the same for the two groups. All the interviews followed the same outline, starting with questions about the respondents' socio-economic background, followed by research questions. An audio recorder was used to document the respondents' opinion on each of the research questions. The recorded responses were translated and transcribed into written form. On completion of the transcription, several themes emerged from the responses through content analysis.

4. Discussion of Findings

This section presents and interprets the findings on women's access to rural farmland in Ajebandele village, Ile-Ife, Nigeria, in 2019. The themes that arose through content analysis are discussed and organised by the research questions. Some of the responses are quoted in-text to collaborate the discussion of the findings in this study. The socio-economic characteristics of the women farmers are presented in Table 1 below.

Table 1: Demographic Characteristics of Rural Women Respondents

| Variables | Percentage (n=13) |
|-----------------------------------|-------------------|
| Occupation | |
| Farmers | 100% |
| Family Structure | |
| Monogamous | 38.46% |
| Polygamous | 61.54% |
| Marital Status | |
| Married | 64.70% |
| Widow | 23.53% |
| Single | 11.76% |
| Ages | |
| 25-31 | 7.69% |
| 32-38 | 15.39% |
| 39-45 | 53.85% |
| 46 and older | 23.07% |
| Educational Qualifications | |
| Primary level | 23.08% |
| Secondary level | 46.15% |
| Tertiary level | 30.77% |

Source: Field Survey, 2019

The women respondents' demographic distribution in Table 1 shows that the study includes women from different age groups, marital statuses, family structures and educational qualifications. The majority of the respondents were married. Eight of the 13 women interviewed were in a polygamous family. This could explain the higher population of women in the village as compared to their male partners. Just over one-half of the women surveyed are age 39 to 45. Ten women farmers had at least a secondary education.

4.1. Customary Land Allocation Process

This subsection provides answers to the first research question (What is the customary land allocation process in Ile-Ife in 2019 after the LUA?). Customary land is that which is owned by indigenous communities and administered following their customs. Both the key informants and women farmers gave insights into the customary land allocation process practiced in the study area. The responses received from the two groups of respondents are discussed below.

4.1.1. Key Informant Interviews

When asked about the land allocation process, the key informants stated that there are three classifications of land in the study area. The classification is based on management, control and the way the proceeds from the land are shared. The three classes of land identified are community land, family land and palace land. In a key informant's words:

“We have three classes of land in the village: the family land, owned and managed by the family member; the community land is managed and controlled by the Baale of the village and Chief Lukosi of Ife while the palace controls the palace land. The proceeds from palace land are divided into three portions. One portion for the labourer, another for the Lukosi compound and the other for the palace.”

(Community leader 1, 2019)

The key informants further reported that the allocation of land in the village was the community heads' sole duty. A committee currently handles land allocation to anybody (irrespective of their gender) interested in farming activities within the village. Individuals seeking land must provide a guarantor. Land allocated to individuals is documented. The allocatees bring wine to the elders for blessing and pay a tribute (a portion of the farmland's proceeds; the tribute is a kind of commitment made to the property owner regarding the leased land, and the payment is typically made yearly or subject to the agreement between the parties). The key informants acknowledged that the process of land allocation had changed, noting that in the olden days (the period before the promulgation of the LUA), land was acquired through first settlement. Land was also given out liberally to people without records or any payment. These practices resulted in land disputes.

“We selected some elders that have a vast knowledge about the land in the village to see to the administration of land to those that requested for land. Such land is leased out and not sold. The lessee will be expected to pay tribute on the farmland. In the olden days, our fathers gave out land freely to the people, and this resulted in some of our land falling into the wrong hands.”

(Community leader 3, 2019)

Furthermore, the key informants emphasised that there have been changes regarding women's access to land. It was reported that to an extent, there are no restrictions on women's access to land ownership in the village. Both women and men now have equal access to land rights. However, the key informants noted that women still find it challenging to inherit land owned by their husbands.

“Women were not entitled to inherit a property in the olden days. Women were denied the right to inheritance of their father's property in the olden days. Civilisation and several awareness programs have caused changes in access to land and women can claim their right to the deceased father's property just as the men but it is difficult to get land in one's husband house.”

(Community leader 1, 2019)

4.1.2. Women Farmer's Interviews

Women farmers were interviewed about how they acquired land in recent times relative to before the LUA. Some of the responses revealed that women now acquire land through purchase, gift, lease and inheritance from one's father. The women further confirmed that women now inherit land from their fathers, unlike in the past, when women were considered inheritable property.

“My husband was invited to this village by his friend who gave him farmland, which we are cultivating for both food and cash crops. We are not paying any tribute since the land was given freely. I was given farmland by my husband, the proceeds of which are being used to manage our home. I also purchased a plot of land from an owner with agreement on the amount to pay.”

(Woman 2, 2019)

“I inherited it from my father. Women were restricted from inheritance in the olden days as they (women) formed part of the inheritable property.”

(Woman 8, 2019)

From the above responses, it can be deduced that the present-day land allocation process has improved compared to the practices before the LUA of 1978. The community introduced a measure to facilitate land allocation by instituting a committee that oversees land allocation and is accountable to the community leaders. The requirements for acquiring farmland through community allocation are that the recipient must be a farmer and provide a guarantor who must be a well-known person in the village. In the past, no land allocation records were kept. However, now details of land allocation are appropriately documented, implying that more attention is being given to land, possibly due to the increasing recognition of the land's value. Most importantly, there is no gender discrimination in access to land; the restriction placed on women regarding access to land before the LUA of 1978 has been removed, suggesting that women's access to land has improved in alignment with the assertion in Bugri (2008).

4.2. Rural Women's Access to Land

In this section, the extent of rural women's access to land in Ajebandele village in the context of land availability, land affordability, land tenure security and ease of transaction is explored. The findings are discussed under the subheadings for each context.

4.2.1. Land Availability

Land availability is essential for access to land. The responses from both groups of interviewees revealed that farmland is made available to women. Six themes as to how land is made available are land clearance, inheritance, purchase, lease, cultivation grant and a gift from friends.

The findings in Table 2, show that women have multiple ways to acquire land rights in the study area. This suggests that the LUA has advanced women's access to land in the context of land availability. Available farmland within the community or family holdings is accessible to both women and men farmers in line with the observation of Aluko and Amidu (2006).

Table 2: Ways Women Acquire Rights to Rural Farmland in Ile Ife

| Theme | Description of Responses |
|-------------------|--|
| Land clearance | A system in which one could acquire an interest in farmland (for an agreed period) in exchange for a particular activity (field clearance). |
| Inheritance | The family land is transferred to the deceased's family lineage or heirs. Individual's family land is inherited in equal proportion by the deceased's children irrespective of gender. |
| Purchase | An outright transfer of an interest in land for cash payment. Presently, family land is sold subject to the family members' consent as represented by the principal or head in a polygamous family. |
| Lease | The transfer of leasehold interest in land to another person in consideration for cash or products from the farmland (Tribute) for an agreed period. The terms of such a lease are usually documented. |
| Cultivation grant | Women were granted the right to cultivate the land by their husband, friends or family. Cultivation grant was the most accessible interest to rural women farmers. |
| Gift | Allocation of land by friends and relatives involves transferring an interest in farmland to a person without consideration in cash or kind. |

In this study, six of the interviewed women farmers had acquired land through inheritance. This finding agrees with Dabara et al.'s (2019) assertion that land inheritance remains the predominant means of acquiring land in agrarian settlements where land ownership is handed from one generation to the next. Land availability through inheritance was accessible to most women except some who were threatened or denied the right to land by greedy siblings or by members of her husband's family, especially a childless woman. Both the key informants and women farmers agreed that community land was not inherited but instead reallocated to community members. The other ways of acquiring rights were less common among the respondents. Two women accessed land through purchase, whereas three women accessed farmland through a lease. Only one woman gained access to land through allocation by a friend and one through a cultivation grant.

Access to land through land clearance was no longer in practice in the study area. This could be attributed to the commercialisation and increased land value in most peri-urban areas, including rural communities. Hence, field clearance is considered inadequate to be exchanged for an interest in the land.

4.2.2. Land Affordability

This section addresses the cost of acquiring land; it also compares the ability of a woman (relative to a man) to acquire land through purchase, lease or gift. The means of acquiring land is synonymous to what is given in exchange (consideration) for the right to land. Four themes arose from the responses: affordability of purchased land, affordability of tribute on leased land,

affordability of wine as consideration for land allocation and affordability of land acquired through gift and cultivation grant. Consideration given for land rights could be cash or in kind depending on the land's ownership structure.

Land acquisition through purchase was unaffordable to women as well as men in Ajobandele village. Although the purchase price is the same for both female and male farmers, women felt the price could be more unaffordable for them as they do not have the same purchasing power as the men.

Land acquisition through gift and cultivation grant was affordable to both men and women farmers because such land is given out freely. Land allocation by the community was affordable to women since the requirement, such as wine, was something within reach of women as well as men. Conversely, through a lease, land acquisition was considered affordable by some women, while others maintained there were instances where leasing was unaffordable to women farmers due to an overwhelming tribute. Tribute was considered affordable where it is based on the farm proceeds, and the lessee farmer is expected to make the payment after harvesting of farm produce. However, two women reported instances where the expected tribute was so much that the lessee farmer would be left worse off at the end of the farming activity. The women insisted that tribute on leased land cannot be said to be affordable in such a situation.

4.2.3. Land Tenure Security

Land tenure security is the third component used to judge women's access to land in this study. This section addresses the extent to which women's rights to land is secured. Specifically, it explores the basis upon which women's rights to land could be withdrawn relative to men. Four themes emerged from the responses: revocation for public use, revocation for socio-cultural and family issues, revocation for legal issues, and revocation for economic issues as defined in Table 3.

Table 3: The Basis for Revocation of Women's Right to Land

| Theme | Description of Responses |
|---|--|
| Revocation for public use | Rights to farmland revoked for overriding public purposes such as community or government use. |
| Revocation for socio-cultural and family issues | Divorce, misconduct, intentional act, family crisis, violence, death or land dispute results in the revocation of land rights. |
| Revocation for legal issues | Breach of agreement, lease expiration and illegal sales are the basis upon which rights to farmland can be revoked. |
| Revocation for economic issues | Improper management and withdrawal for personal use results in the revocation of land rights. |

Evidence from the responses suggests both men's and women's rights to farmland could be revoked without any form of discrimination for public use, lease expiration, breach of the agreement and invalid sale. Similarly,

misconduct, an intentional act, family crisis or land dispute, improper management and withdrawal for personal use can result in revocation of men's and women's rights.

However, only women's rights to farmland can be revoked at divorce, separation and death of the spouse. This finding agrees with the position in Aluko and Amidu (2006) and further supports the argument in this paper regarding the disparity in land rights across gender. At the death of a husband, the family members often displaced the wife (most commonly, the childless ones) from her deceased husband's property. This resulted in the affected women losing access to farmland, thus, rendering such women economically unproductive.

In addition, two of the women interviewed reported instances where women were displaced from their father's property by their greedy siblings. Furthermore, some women access land through cultivation grant from family and friends without cash payment. This way, the owner of the land retained the primary right to the land. This undermines women's security of tenure. Such land can be withdrawn at any time by the owner. Most women farmers merely use the farmland under controlled conditions and are unable to cultivate the land without continual interference. Hence, it can be deduced that rural women farmers in Ajebandele lack adequate security of tenure. This finding is congruent with the conclusions of Ghebru and Lambrecht (2017) in Ghana. Inadequate tenure security can have socio-economic implications for women as posited in Dabara et al. (2017).

4.2.4. Ease of Transaction

This section addresses the fourth component of accessibility, which refers to the challenges women face before acquiring land in Ajebandele customary practice. A total of five themes emerged from the responses: sexual harassment, doubt of women's competence, the requirement for a guarantor, lack of investment information and delays due to conditionality.

The responses reveal that harassment by the community leaders was one of the challenges women face while searching for farmland for cultivation. However, some women in this study stated that they were not harassed before they acquired land rights. This might be connected to the fact that most of the respondents (six women) acquired land through inheritance of their deceased father's property. Additionally, a lack of confidence in women's capability to undertake farming activities delayed their access to farmland. Landowners (in the case of family land) and the community leaders (in the case of community land) tend to doubt women's competency to farm. Such doubts led to some women being denied or delayed land allocation. This finding agrees with the assertions in Enete and Amusa (2010) that women in most farming societies face attitudinal barriers and can be attributed to societal misconceptions about women farmers. Furthermore, a woman seeking land for cultivation was asked to provide a guarantor who may or may not be her husband before land can be allocated to her. The requirement for a guarantor delayed women's

access to farmland. There were cases where some husbands frown at their wives having private farmland and tend to restrain other men from standing as a guarantor to such wives, thus, delaying or hindering their access to land.

Access to information is vital to accessing land rights; the absence of information about land offered for sale, including the original owner of the land and the land's fertility delays the sale of such land. It was reported that women are less informed about land-related matters because they are confined within the house. Thus, lack of information acts as a significant challenge to women's access to land.

Some women acquire land based on certain conditions such as giving their daughter in marriage to the landowner or the landowner's son. Such an acquisition can be delayed if the party did not meet the condition. This challenge was reported to affect both men and women that acquire land in such a manner. One of the women interviewed said she and her husband accessed the farmland they are cultivating on the condition that their daughter will be married to the landowner's son and the wife was made to ensure the party get married before they were given the land.

4.3. Factors Influencing Women's Access to Land

This section addresses the factors that influence women's access to land in the study area. The themes that emerged from the key informants and women farmers' responses are shown in Table 4 and discussed below.

Table 4: Factors that Restrict Women's Access to Land

| Themes | Description of Responses |
|------------------------------|--|
| Custom and tradition | Some cultural beliefs, land tenure problem and limited land restrict women's access to land in the study area. |
| Educational status/awareness | Illiteracy, ignorance and lack of necessary information were noted to affect women's access to land. |
| Unavailability of finance | The limiting factor to purchasing land is inaccessibility to finance, especially for a woman. Women were considered to be working at a lower level and lower pay compared to men. |
| Personal factors | Factors that have to do with the woman herself including woman's actions or inactions, health status, incompetency, lack of interest or passion for other sectors such as trading, skill acquisition or paid employment affect women's access to land. |
| Socio-economic factors | Family crisis, family structure, marital status and husband influence impact on women's access to land. |
| Religion | Specific religious belief restricts women's access to land rights. |

In line with Moyo's (2017) work in Tanzania and Chigbu et al.'s (2019) in sub-Saharan Africa, the responses show that custom and tradition and religion influence women's access to land. The interviewees explained that custom

and tradition significantly influence women's access to land. A substantial number of the villagers are members of the Idoma and Igala tribes in which only the men lease and work on the farmlands. Because the Idoma and Igala tribes' customs do not permit the women to engage in farming activities, their access to farmland is restricted. Religious status was also a basis for gender discrimination in land access; the Niqobait (veiled Alhaja) of the village were restricted from undertaking farming activities and, therefore, had no access to farmland.

The theme of education and awareness includes illiteracy, ignorance and lack of necessary information as influences on women's access to land. Both the key informants and women farmers indicated that women were unaware of their right to land as provided in section 42 of the Nigerian constitution; hence, they could not claim their land rights. "*Women...started challenging community traditions on land acquisition as they get aware of their rights*" (Almaz, 2007, p.84). Thus, knowledge about land rights is critical in breaking custom and traditional impediments to women's access to land. Also, the land market is unique in the secrecy of information in the market. This problem was exemplified by reports that land grabbers duped some women through fraudulent sales due to unavailability of firsthand information.

One limiting factor to purchasing land is the lack of access to financing, especially for women. Women were considered to be working at a lower level and lower pay compared to men. All the interviewees agreed that women's lower pay, coupled with the burden of home-keeping have a negative impact on their income flow and access to adequate financing. This finding is congruent with Dowuona-Hammond's (2003) suggestion that women's lack of access to land in Ghana is linked with women's higher level of poverty and other burdens.

Characteristics of the female farmer we label as personal factors, such as health status, incompetency, lack of interest or passion for other sectors such as trading, skill acquisition or paid employment were cited by respondents as contributors to lack of access to land. All the respondents also identified women's 'actions and inactions' as restricting women's access to land in line with the submission in Chigbu, (2019). These factors hinder women in the study area from taking steps toward acquiring land even with the knowledge of land value. Furthermore, the respondents identified socio-economic factors as a theme contributing to lack of access to land. Family crisis is a regular happening amidst greedy siblings who oppose women's access to land based on the belief "*she will be getting married to a man, from whom she will get land*" (Woman 2, 2019). The interviewees confirmed that a polygamous family structure entailed that wives would work on their husbands' farmland, which tends to restrict women's access to land. Some of the women farmers interviewed argued that some husbands were capable of frustrating their wives' desire to acquire land even through allocation or gift. This, the interviewees said, was to ensure that the wives continued to work on the husband's farmland even amid discriminatory allocation of farmlands among wives in a polygamous family setting.

5. Conclusion

This study investigated women's access to rural farmlands in Ajebandele village of Ile-Ife, Nigeria, in the context of land availability, land affordability, tenure security and ease of transaction with the intent of establishing the extent to which provisions of the Nigerian LUA advanced women's equal access to farmland in the study area. Findings from the study revealed an appreciable difference in the present-day land allocation process compared to the practices before the LUA. This is reflected by the local committee that is instituted to facilitate land allocation in the village. Farmland within the community or family holdings is legally accessible to both men and women through inheritance, purchase, lease, cultivation grant, gift and allocation. Additionally, land acquisition through gift or cultivation grant is affordable to women farmers. However, access to land through purchase and lease can be unaffordable to women farmers due to the cost of purchasing land and overwhelming tribute. Furthermore, the women interviewed lacked security in their right to farmland. Women are dispossessed of their right to farmland at divorce, separation and death of the husband.

The customary process of land allocation in Ajebandele village, Ile-Ife, Nigeria has been refined over the past four decades to support women and in theory, provides equal access to land for men and women in terms of land availability and affordability. It also ensures that the process of accessing land is not burdensome. Notwithstanding these improvements, the Nigerian LUA provisions have not wholly attained women's equal access to farmland in Ajebandele village, Ile-Ife, Nigeria. Rural women farmers still lack access to land in the context of tenure security. Thus, gender differentials still exist in the security of tenure in land in the study area.

Insecure access to land remains one of the major elements that creates and sustains poverty among women in farming communities of Sub-Saharan Africa; where customary laws and traditional practices have instituted gender inequalities in access to secure land rights. Other African countries such as Ghana, Cameroon, Ethiopia and Tanzania have similar customs and traditions that impact women's secure land rights and could benefit from this study's results and recommendations. Hence, policymakers should pay attention to gender biases concerning women's tenure security to guarantee equal access to land. This can be achieved by restructuring the customary land administration in a gender-sensitive way to strengthen women's secure land rights and ensure equal benefits from policy results. Even though socio-economic concerns play a role in women's insecure access to land, custom and tradition, principally, influence the realisation of gender equality in land rights. There is, therefore, a need for change in the practices that introduce women's tenure insecurity to bring about greater gender justice in women's land rights. Governments and society should devise plans to address women's insecure land rights through advocacy and awareness campaigns to revolutionise the community's mind-sets and practices.

This study's limitation is that it was carried out in a village and during the rainy season; some areas were inaccessible due to the poor state of the road network in the village. Thus, only a small number of farmers were interviewed, but the researchers believe that their response was generally applicable in the village. Further research involving more villages and respondents is also recommended to bring forth comprehensive rural women's land right issues for policy and implementation.

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Barriers to Housing Development in Lagos Fringe Areas: A Developer's Perspective

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Abstract

This study investigates developers' land acquisition and housing developments to assess factors that influence utilisation of the acquired land for housing development and strategic approaches that could drive mass housing developments. A sample of 141 members of the Real Estate Developers Association of Nigeria (REDAN) and 31 heads of units in the Land Bureau were surveyed. Weighted mean score and factor analysis were used to identify the barriers limiting housing developments and strategies that could enhance developers' housing initiatives. Findings revealed that the total number of housing units developed is insignificant in the study location, and eight groups of barriers were identified by developers as limiting their housing initiatives. Weak land institutional frameworks and inconsistency in government regulations and policy were recurring themes. These barriers are germane to housing development in the urban fringe of a growing African mega-city that needs 500,000 new housing units annually for the next 10 years to bridge the housing gap. The study recommends an efficient land reform framework to remove policies and regulations that impede timely land documentation, administration and housing development and to include developers through cooperative ventures.

Keywords: Developer; Housing; Land Acquisition; Land Policy; Urban Fringe; Nigeria

1. Introduction

The Nigerian National Housing Policy of 2002 aimed to create an enabling environment for land accessibility to boost housing construction by organised private developers. The policy encouraged land acquisitions by developers, especially in the Lagos fringe areas, in anticipation of development of housing units to bridge the gap between housing need and supply. Despite this, the housing deficit in Lagos has persisted. In fact, it was estimated 500,000 new

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units would be required per annum for the next 10 years to bridge this gap (Alufohai, 2013). Reports have shown that subsequent efforts have not been able to match the required estimate. For instance, in 2015, only 940 housing units were delivered through the joint effort of government and private developers (Aliu et al., 2017; Babalola et al., 2020). This is a major cause for concern with continuous population growth at 3.2% per annum and a rapid urbanisation rate exceeding the average for most developing countries. The United Nations Department of Economic and Social Affairs-UNDESA (2019) projects that while the world's urban population will grow at a rate of 1.2% annually from 2015 to 2025, the annual rate of growth in developing countries is estimated to be twice that at 2.5%. With an average population density of 20,000 persons per square kilometre, the crowding in Lagos is dire and requires immediate analysis and intervention as attested to in extant literature (Iyanda, 2015; Olofa & Nwosu, 2015; Adedire et al., 2016; Hsieh & Moretti, 2017; De Maria, 2019).

Acquisition of parcels of land without immediate development often occurs in and around urban settlements. Large expanses of land in the Lagos fringe area are left unused for several years even though there is a need for immediate housing construction. The current expansion and intense competition for land by individuals and private housing developers, especially along major transportation routes in the Lagos fringe areas, accentuates the need for urgent attention especially because there is a paucity of research on organised private developers' activities and their impact on housing supply in the study area.

The land acquisition process in the Lagos fringe area involves several stages before development (Nubi, 2001; Olofa & Nwosu, 2015), including land identification, negotiation, procurement and documentation. Land identification involves the search for information by the prospective purchaser or intermediaries who mediate or facilitate the negotiation process. Once the developer's interest in land has been established, negotiations involving local communities or customary right holders start. This usually involves critical debate among villagers and local representatives as to the benefits of the project to the immediate community. Payment for the land and compensation to persons negatively affected is the next stage. The mode and distribution of payments over a specific period of time are specified. Compensation could be paid in physical infrastructure or cash. Land is allocated after payment is complete. Documentation is the next stage. The State Government's Land Bureau is the formal agency responsible for ratifying transactions involving land held under customary ownership - especially large parcels of land. The sale/purchase agreement signed by both parties and the receipt issued by the land-owning family are then taken to the Land Bureau for further processing to obtain the Certificate of Occupancy (C of O) (the most highly rated and acceptable form of title to land), or Governor's Consent (GCT) in the case of land already held under a valid right of occupancy. Only after this process is completed should actual construction commence. Despite the sequential process, many developers still experience threats to their possession of the land from the regulatory agency.

The reasons for the slow pace of construction, especially of housing units, after successful acquisition of land by developers is yet to be empirically established. In particular, it is essential to investigate the extent to which developers' land acquisitions impact the housing supply in the Lagos metropolis fringe and to establish reasons why housing supply expectations are not being met. Previous studies, including Adisa (2020), Olmedo and Ward (2016), and Hull and McGroarty (2014), disclosed that residential development for middle- and low-income workers across cities has shifted from major centres and their immediate neighbourhoods to fringe areas. A cursory evaluation suggests that Lagos is no exception - a megacity with an unrelenting rapid increase in population in the fringe areas far exceeding that in the inner core areas. Apart from high rents driving residents to the fringe, a probable accentuating factor is the 'new normal' of working from home due to social distancing regulations introduced to curb the spread of the COVID-19 pandemic. Most workers can now stay away from the city to work from the comfort of their homes. This notwithstanding, the rate of new housing construction is far below what is required.

1.1. The Research Questions

This study, therefore, seeks to explicate the growing housing deficit despite land acquisitions in the periphery. Specifically, the study seeks to establish why organised formal developers engage in extensive land acquisition without significantly developing housing despite the need to alleviate the growing deficit. The objectives of the study are:

- to establish the extent of developers' land acquisitions,
- to determine barriers that hinder the development of housing units on the land acquired, and
- to identify strategies that could encourage increased housing development on the land acquired.

2. Literature Review

A range of supply-side interventions in the Nigerian housing sector have been used in recent years to boost housing production through direct construction, renovation of existing residential units and public-private partnership programs. Efforts have also been directed at increasing the ability of housing supply to better respond to changes in demand (Nubi, 2001; Akinyode & Tareef, 2014). However, housing need far exceeds the supply (Morakinyo et al., 2015; Nubi 2015). Advocacy for private sector housing delivery that began about two decades ago has increased developers' land acquisition activities without achieving the anticipated improvement in housing development. This, in the face of resource scarcity concerns, according to Manda et al. (2019), has only made the government's lapses in its relationship with investors/developers and the local population more visible.

The National Housing Policy was introduced to promote a shift in emphasis to the organised private sector as the main engine for housing delivery in

Nigeria. The key features of this policy include placing the private sector in a pivotal position for the delivery of affordable houses on a sustainable basis. The government was assigned the responsibility of providing primary infrastructure for new real estate developments. It was to review and amend the Land Use Act to ensure better access to land and speedier registration and assignment of titles to developers. Another feature of the policy is the restructuring of the mortgage system such that the Federal Mortgage Bank of Nigeria (FMBN) became the apex bank disbursing funds to primary mortgage institutions that would lend to individuals and corporate housing developers. A National Housing Fund (NHF) was established and mandatory deposits of a portion of civil servants' salaries instituted, among other steps, to facilitate accumulation of funds. In addition, more favourable mortgage terms were introduced, along with a five-year tax holiday incentive for developers. Although such incentives had been advocated before by Onibokun (1990), Mabogunje (1993) and Agbola (1993), it was only under this policy that the incentives were made operational (IMF, 2015; Olofa & Nwosu, 2015; Usoro, 2015; Nwoko, 2016). Further reforms include support for the Building Materials Producers Association of Nigeria (BUMPAN) and the establishment of the Real Estate Developers Association of Nigeria (REDAN) to organise the stakeholders and assist the private sector to play the leading role in housing production and delivery. Furthermore, interest rates were substantially reduced on National Housing Fund (NHF) loans to REDAN members and the housing finance sub-sector was restructured to include the introduction of the secondary mortgage market (Adelekan, 2013). REDAN is now the principal agency of the organised private sector recognised by the government and approved by FMBN for housing development. Subsequently, the National Housing Policy encouraged land acquisitions by developers, especially in the Lagos fringe areas, in anticipation of profits from the development of housing units.

Many researchers have attempted pragmatic, policy-oriented and scientific research on housing related issues in Nigeria; however, very few have focused on land acquisition matters with only tangential reference to developers and related issues in the fringe areas. Some of the studies concentrated mainly on housing needs and some on the evaluation of the policy and emanating programmes while others investigated housing finance, housing construction and related administrative matters. Chatterjee (1981), Agbola (1993), Ogu and Ogbuozobe (2001) analysed problems that work against increasing the supply of housing units in Nigeria and asserted that predominance of small firms, inadequate workforce, institutional inefficiencies, organisational inefficiencies and inadequate housing policy implementation framework are major issues that affect housing development. The findings of these studies are still relevant as these problems persist after 40 years (Akeju, 2007; Aliu et al., 2017; Adedire, 2018) In contrast, Omirin (1992) affirmed that access to land was a major constraint 30 years ago, but it was no longer as serious as housing finance which later became the focus of extensive analysis by Nubi (2000). Further, Ademiluyi, and Bashiru (2008) studied public and private developers as agents in urban housing delivery in Lagos State. They found that labour cost was one of the major obstacles to

developers delivering housing. The fringe area was rarely considered in its entirety in these studies, although some sought to comprehensively clarify the relationship between the quantity of land acquired and housing supply (Agbola, 1993; Adelekan, 2013; Nubi, 2015). This remains a question worthy of in-depth investigation as an area with ever increasing need for housing deficit reduction.

2.1. The Urban Fringe Dynamics and Rationale for the Study

Generally, fringe areas are characterised by rapid development and transition from agricultural land use to semi urban and urban uses (Mori, 1998). In developing countries, the transition is largely unplanned. As a result, fringe areas are susceptible to sprawl with its attendant negative effects. Also, urban fringe areas are subject to many competing interests and, as such, can be analysed from different perspectives. In the international planning literature, urban fringe areas often evoke a concern with sprawl (Gallent, 2006; Feng et al., 2015; SACN, 2018). Some of these studies allude to the potential of properly implemented housing policy to mitigate the negative effects of urban sprawl, resolve housing shortages, promote transit-oriented development and ensure orderly expansion in the long run. The fringe area requires an institutional framework to strike a balance between relieving poverty, protecting the environment, maximising the productivity of human and natural resources, promoting efficiency of the property market and ensuring synergy between urban and rural areas (Heimlich & Anderson, 2001; Allen, 2003; Saxena & Vyas, 2019a; Adisa, 2020).

Mabogunje (2007) and Adedayo (2014) affirmed that because of population growth, expansion will continue to extend towards several previously stand-alone peripheral towns especially in the north of Lagos State, which belongs to another administrative jurisdiction; Ogun State. The fringe area is often an area that spans more than one administrative unit. As a result, it will have weak links and limited municipal powers in sectors such as transportation and land use planning. This is true to a large extent of Lagos, which is continuously expanding its built-up area and encroaching upon parts of the territories of Ogun State.

The problems associated with fringe development are not unique to Lagos. The UK Department for Communities and Local Government reports that new build completion was used to control incompatible land uses and bridge the gap for housing shortfalls in its fringe areas (Gant et al., 2011). Accordingly, Saxena and Vyas (2019b) noted weak government regulations, which manifest in the form of sprawled development, informal and illegal structures, as one of the major barriers in fringe areas. A lack of sufficient housing stock is common throughout Sub-Saharan Africa due to rapid population urbanisation and a shortage of housing construction (World Bank, 2015). Many households cannot afford basic formal housing or access mortgage loans due to the cost and/or cumbersome regulatory requirements. The key challenge for African cities is that the formal channels through which quality housing is produced and financed face major constraints that limit

access for a large share of urban households. A recent United Nations study found that formal housing investment lags behind urbanisation by nine years in Africa (Dasgupta et al., 2014). The experience in Sub-Saharan Africa shows there are many factors besetting housing construction that require policy interventions.

2.2. Theoretical Underpinnings

Formal housing supply is the product of a complex decision-making process involving organised private developers, landowners, financiers and government agencies. There is very little evidence about how each participant reacts to others in the process. This suggests the application of game theory to explain developers' rationalisation in the study location. Developers cannot perform any of their roles in isolation. For example, they are reliant on landowners for the supply of land, the town planning authority for permission to develop, financiers for capital, and consumers to complete their cash flow cycle. Moreover, at all stages in the process, they are dependent upon a multiplicity of groups and individuals to supply information for decision making and to reach their development goals. According to Anglin and Arnott (1991), Samsura et al. (2010) and Sengupta (2013), game theory focuses on analyzing the outcome of strategic interaction among stakeholders and the implications of those outcomes.

Land transactions during land use change have been studied by Holtslag-Broekhof et al. (2014) and Zhang and Skitmore (2015) using game theory. The theory builds on the assumption that decision-making is an interactive process that relies on three basic concepts: *the players*- referring to the developers making a decision; *strategies*- referring to developers' actions; and *pay offs*- referring to the value that the result of a decision gives. In addition, there are three agents who determine the development decision model. These are: (i) *the developers* who initiate development plans, (ii) *the government institution* charged with approval of such plans and (iii) *the public*, whose demand for residential accommodation drives development (Maruani & Amit-Cohen, 2011). Subsequently, the outcomes of the interaction among the three agents seemingly determine the attributes of the fringe areas as well as the quantity of housing supplied to the market.

The interaction among stakeholders in the housing market has been characterised by the role of each actor and contribution to the process in terms of leadership, strategies and dominance. Ball (2003) also applied game theory to a study that focused on the strategic interactions of land developers to analyze the decisions made by two independent land developers on price and quality. The findings showed that the decentralised developer can adopt two kinds of strategies depending on the distance and the anticipated level of quality at the CBD. Therefore, an interdependent decision-making process in which the decision-makers involved have conflicting preferences and the outcomes of their decisions cannot be determined by one party or actor is only explicable applying game theory. Because game theory focuses on situations in which interactions and interdependency play a role, there is a growing

literature that applies game theory to the housing market. It is believed that this can provide an important theoretical basis for explaining the housing development processes and suggesting some clues to future empirical work on this theme.

This study examines the actions of two classes of agents (developers and Land Bureau officials with the responsibility of regulation and policy making), the strategies adopted in the process of land acquisition and housing development in the fringe area of Lagos by the parties and the outcome of the strategies adopted. The research aimed principally to gain a deeper understanding of the constraints affecting physical housing construction by developers in the Lagos fringe areas. The section below provides the data collected on developers' actions and strategies and the government agency's reactions to the strategies adopted to enhance housing development in the study area. The resultant effects on the quantity of housing construction are derived and analyzed further to expose the barriers to developers' efforts in housing development and evaluate the applicability of strategies that will be workable and acceptable to the actors in the study location to encourage development.

3. Methodology

Secondary data were gathered from documents in government archives, relevant published materials and internet sources. Primary data were obtained through a semi-structured questionnaire and a structured interview schedule. A questionnaire was administered to a sample of REDAN members who are mainly professionals in the built environment and other allied professions while in-depth structured interviews were conducted with government officials, including planners, land surveyors, estate surveyors, architects, and lawyers. The questionnaire was designed to provide responses to specific questions about land acquisition and housing development and was administered by the researcher, assisted by two trained research assistants, between January and March 2019.

The study adopted the survey approach to elicit information on developers' land acquisition and housing development constraints in the study area. Identifying the quantity of housing stock (formal and informal) and developers' contribution to the housing stock in the study area is difficult to quantify in the absence of consistent and reliable data. This work relies on development titles obtained by the developers (C of O or GCT) to estimate their contribution to the housing stock in the study area. This approach was chosen for this study based on the research objectives posited to explain the extent of land acquisition and strategies adopted in housing development. The purposive approach allows investigators to retain the holistic and meaningful characteristics of real-life events such as small group behaviour, organisation, and neighbourhood interaction (Yin, 2011). A purposive sampling technique was adopted because the focus of the study demands concentration on the interaction of individuals or groups involved in the key activities under investigation.

3.1. Sample

The population for the study is made up of members of REDAN and the heads of units in various departments of the Land Bureau in Lagos and Ogun States. REDAN's membership in Lagos (southwest zone) is 251 and there are 31 Land Bureau officers. Only 141 REDAN members were in practice with offices within Lagos fringe areas, which formed the sample of developers for the study. A total of 123 questionnaires were completed for a response rate of 87.23%; however, due to incomplete answers on some questionnaires, only 109 are used in the analysis for a usable response rate of 77.30%.

The study set out to interview all 31 heads of Land Bureau units relevant to the study. Where the heads of units were not available, the researchers proceeded to contact each subsequent person in the hierarchy until an official agreed to participate and then gathered data using a structured interview format.

3.1.1. Characteristics of Respondents– Developers

The characteristics of the 109 REDAN members whose questionnaire responses were analysed are shown in Table 1. A few had been working in the industry since 1992; however, the developers had been in the real estate business, on average, for 12 years. This is long enough to give reliable insight into the subject matter. The majority of their firms (58.72%) are corporations. The average staff size is 12; however, 24.77% work in firms with more than 20 staff members of varied technical skills and qualifications. This is significant as it shows that they have requisite manpower to embark on housing development projects. However, only 17.43% indicated their organisations' financial strength to be above ₦250 million (US\$694,444). Although this is rather small, it must be borne in mind that they use a range of modes of financing their projects.

Table 1: Land Developer Respondents' Characteristics

| Variable | Category | Percentage (n=109) |
|----------------------------------|--|--------------------|
| Gender | Male | 84.40% |
| | Female | 15.60% |
| Educational Qualification | Ordinary National Diploma | 2.75% |
| | Higher National Diploma | 12.84% |
| | BSc | 38.53% |
| | MSc | 42.20% |
| | M.Phil/PhD | 3.67% |
| Discipline/Profession | Estate Surveyor and Valuer | 33.94% |
| | Civil Engineer | 11.93% |
| | Architect | 11.01% |
| | Builder | 10.09% |
| | Urban Planner | 3.67% |
| | Land Surveyor | 2.75% |
| | Quantity Surveyor | 1.83% |
| | Other | 24.77% |
| | (Lawyer/Marketer/Accountant/Geologist) | |

| | | |
|--|----------------------------|--------|
| Professional Qualification | Probationer | 15.60% |
| | Associate | 44.95% |
| | Fellow | 14.68% |
| | Other | 24.77% |
| Organisational form | Corporate Organisation | 58.72% |
| | Sole Proprietorship | 28.44% |
| | Private Individual | 11.01% |
| | Partnership | 1.83% |
| Year of Establishment | 1992-1996 | 22.02% |
| | 1997-2001 | 19.27% |
| | 2002-2006 | 11.93% |
| | 2007-2011 | 22.02% |
| | 2012-2018 | 24.77% |
| Organisation's Staff Size | 1-5 | 22.02% |
| | 6-10 | 19.27% |
| | 11-15 | 11.93% |
| | 16-20 | 22.02% |
| | More then 20 | 24.77% |
| Mode of Project Funding | Bank Loan | 41.28% |
| | Public Sector Contribution | 20.18% |
| | Off Plan Payment/Joint | 1.83% |
| | Venture/Stakeholders Fund | 36.70% |
| Organisation's Financial Strength (₦) | Less than 50 million | 30.28% |
| | 51-100 million | 16.51% |
| | 101-150 million | 3.67% |
| | 151-200 million | 8.26% |
| | 201-250 million | 23.85% |
| | More than 250 million | 17.43% |

Note: US\$1 = 360.00 NGR Naira (₦) as of 7th May, 2019.

3.1.2. Characteristics of Respondents - Land Bureau Officers

The Land Bureau officers interviewed have 7 years of experience, on average. This is long enough for them to understand the dynamics of land acquisition and titling issues as well as the strategies required for progression and ease of doing business for both investors and developers. Their professional qualifications, as shown in Table 2, indicate that they have the requisite professional experience.

Table 2: Land Bureau Officers Respondents' Characteristics

| Variable | Category | Percentage (n=31) |
|----------------------------------|----------------------------|-------------------|
| Department | Land Services/Land Bureau | 67.74% |
| | Town Planning | 22.58% |
| | Administrative | 9.68% |
| Educational Qualification | Higher National Diploma | 35.48% |
| | BSc | 29.03% |
| | MSc | 32.26% |
| | M.Phil./PhD | 3.23% |
| Discipline/Profession | Estate Surveyor and Valuer | 32.26% |
| | Urban Planner | 25.81% |
| | Quantity Surveyor | 6.45% |
| | Architect | 3.23% |
| | Others (Admin officer) | 32.26% |

| | | |
|-----------------------------------|----------------|--------|
| Professional Qualification | Probationer | 25.81% |
| | Associate | 58.06% |
| | Fellow | 6.45% |
| | Other | 9.68% |
| Experience | Less than 1 yr | 3.23% |
| | 1-3 yrs | 6.45% |
| | 4-6 yrs | 41.94% |
| | 7-9 yrs | 22.58% |
| | 10 yrs or more | 25.81% |

3.2. Survey Instrument and Analysis Tools

The questionnaire administered to the REDAN sample contained both open and closed-ended questions- the latter for ease of analysis and the former to give the respondents opportunity to clarify their responses. The questionnaire administered to the Land Bureau officials contained semi-structured questions to give respondents opportunity for clarifications. The instruments showed good face and content validity.

- To address the first research objective, the questionnaire required the developers to indicate the quantity of land acquired at various locations within the study area, the types of title documents obtained, and the quantity of land developed. Simple descriptive statistics were used to determine the proportion of land developed from the total land acquired.
- The second research objective required identifying the major causes of delay in housing development after land acquisition. A total of 28 potential causes were identified from the literature. Developers were asked to indicate the degree of seriousness of the causes using a 5-point itemised (Likert) rating scale from 'Very serious' to 'Very unserious'. Items with mean values of 4.0 and above were judged to be the most prominent influences hindering immediate housing development in the study locations. Furthermore, factor analysis employing the principal component method was applied to identify the groups of barriers causing delay in housing development in the Lagos fringe area.
- The third objective was pursued from two perspectives. Having identified the barriers affecting housing development, developers were further asked to indicate their preferred strategy for boosting housing development by ranking the identified strategies from the literature using a Likert scale of 1 to 5, where 5 means 'Very acceptable' and 1, 'Very unacceptable'. A weighted mean value greater than 4.0 is interpreted as the respondents accept that if adopted, that strategy will enhance housing development. Government officials in the Land Bureau were then interviewed to determine if there is similarity or mismatch between strategies they adopt and those preferred by the developers to assist in the identification of strategies needed to enhance the rate of development of housing units on the land acquired. The Land Bureau officers were asked to rate the extent to which collaborative strategies are being

used to enhance housing development of land acquired in the fringe areas on a scale of 1 to 5 from 'Not in existence' to 'Very often' with a criterion of 4.0 to identify strategies that are more in use.

4. Results and Analysis

The study questions were structured to unravel the challenges of housing development in the study area. The results and their analysis are presented below.

4.1. Extent of Land Acquisition, Title Documents Obtained and Housing Construction in Lagos Fringe Area (2004-2019)

Table 3 shows the quantity and status of land acquired by developers and the quantity developed in the study area between 2004 and 2019. Only an average of 30% of the land acquired by developers have C of Os or GCT while 70% of them have other, less reliable, title documents such as registered survey plans, purchase receipts, evidence of publication in government's gazette, excision letters and deeds of assignment. These latter types of documents are not acceptable to financial institutions for loan disbursements. Most of the land without C of O was affirmed to be undeveloped. In general, it is interesting that about the same proportion of the total areas acquired in Lagos as in Ogun state has C of O. Nevertheless, the government is yet to attain a global best practice by which all land in the state will have titles that are acceptable to financial institutions for development loan purposes.

Table 3: Extent of Land Acquisition and Title Document Obtained in Lagos Fringe Area (2004-2019)

| | | Title Document Obtained (Hectares) | | | | | | | | | |
|--------------------------------|---|------------------------------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|--------------|-----------|
| Community | Quantity Purchased (Hectares) 2004-2019 | C of O | GCT | DAS | EXC | RCT | SVY | LOA | Nil | Qty Dev | State |
| Lagos/Ibidan Expressway | | | | | | | | | | | |
| Arepo | 53.45 | 22.65 | | 8.8 | | 22.0 | | | | 16.0 | OG |
| Ibafo | 7.2 | 3.2 | | | | 2.0 | 2.0 | | | 0.0 | OG |
| Isheri | 24.0 | 2.0 | | | | 20.0 | 2.0 | | | 0.0 | LA |
| Magboro | 41.2 | 19.6 | | 10.0 | | 0.8 | | 10.8 | 0.8 | 3.2 | OG |
| Mowe | 50.4 | 21.6 | 20.0 | 0.8 | 8.0 | | | | | 2.13 | OG |
| Ofada | 35.6 | | | 20.0 | | 14.0 | 1.6 | | | 0.0 | OG |
| Sagamu | 5.2 | 5.2 | | | | | | | | 0.0 | OG |
| Simawa | 32.1 | 1.0 | | 2.0 | | 22.4 | 6.7 | | | 0.0 | OG |
| Total | 249.15 | 75.25 | 30.0 | 31.6 | 8.0 | 81.2 | 12.3 | 10.0 | 0.8 | 21.33 | OG |
| % | | 30.2 | 12.04 | 12.68 | 3.21 | 32.59 | 4.94 | 4.01 | 0.32 | | |

Table continues on following page

| Lekke-Epe Espressway | | | | | | | | | | | |
|-----------------------------|---------------|--------------|-------------|--------------|-------------|--------------|--------------|--|-------------|--------------|--------------|
| Ajah | 89.99 | 60.0 | 6.4 | 35.4 | | | 2.4 | | | 7.30 | LA |
| Ibeju-Lekki | 91.2 | 38.33 | 2.87 | | 0.4 | | 33.6 | | 16.0 | 6.87 | LA |
| | | 0.8 | | 0.53 | 12.0 | 1.6 | 34.25 | | | | |
| Epe- FTZ | 49.18 | | | | | | | | | 0.0 | LA |
| Total | 230.37 | 99.13 | 9.27 | 35.93 | 12.4 | 1.6 | 70.25 | | 16.0 | 14.17 | |
| % | | 40.53 | 4.02 | 15.6 | 5.38 | 0.69 | 30.49 | | 6.95 | | |
| Ikorodu | | | | | | | | | | | |
| Ikorodu | 37.85 | | | | | | | | 0.0 | LA | 37.85 |
| Ikorodu Nth | 12.47 | | | | | | 12.47 | | 0.0 | LA | 12.47 |
| Imota | 7.8 | 1.0 | | 6.8 | | | | | 0.2 | LA | 7.8 |
| Igbogbo | 4.4 | 4.4 | | | | | | | 0.0 | LA | 4.4 |
| Total | 62.52 | 9.0 | | 10.8 | | 8.0 | 38.72 | | 0.2 | | 62.52 |
| % | | 14.39 | | 17.27 | | 12.79 | 61.93 | | | | |

Source: Authors' Field Survey 2019

Note: C of O= Certificate of Occupancy; this is the most highly rated and acceptable form of title to land; GCT= Governor's Consent; DAS= Deed of Assignment; EXC= Excision; RCT= Receipt; SVY= Survey plan; LOA= Letter of Allocation; NILL= Not Documented; QTY DEV= Quantity Developed; OG= Ogun; LA= Lagos

Table 3 further shows the extent of developers' contribution towards assuaging the housing deficit in the study area since 2004. While 249.15 hectares of land were acquired along the Lagos/Ibadan Expressway between 2004 and 2019, only 21.33 hectares (8.56%) were used for housing construction. Similarly, in Lekki-Epe Expressway, only 14.17 hectares (6.15%) out of the 230.37 hectares acquired were used for housing construction. In Ikorodu, 62.52 hectares were acquired with only 0.2 (0.32%) hectares used for housing construction over same period. These results indicate that at least 90% of the acquired land in the study area was either not used at all or was used for other purposes than housing development.

4.2. Barriers to Developers' Land Development for Housing Construction in Lagos Fringe Areas

This section analyses developers' perceptions of the major barriers to housing development after land acquisition based on questionnaire responses. The developers' average ranking of the seriousness of 28 potential barriers identified from the literature on a scale of 1 to 5 are presented in Table 4. Items with mean values of 4.0 and above were judged to be the major barriers to housing development in the study locations. Using this criterion, 9 of the 28 potential barriers were considered major barriers by the developers. Of these, 'High cost of building materials' was ranked as the most serious barrier affecting housing development (mean score of 4.40). Delay in title documentation ranked second (4.34) and weak mortgage system ranked third with a mean score of 4.33. The most serious perceived barriers include financial, bureaucratic and local opposition problems. The developers did not perceive their own financial planning, market demand, construction delays, the physical site characteristics or labour costs as major barriers to housing development. Another barrier identified that was not listed on the questionnaire was 'Calls for regularisation of title after C of O'. This is a

situation that occurs when there is a change in political regime. When this happens, all forms of development are put on hold and sometimes developers lose their land entirely.

Table 4: Developers' Perceived Barriers Affecting Housing Development in Lagos Fringe Area

| Potential Barriers | Mean | Rank |
|---|------------|------|
| High cost of building materials | 4.40 | 1 |
| Title documentation delay | 4.34 | 2 |
| Weak mortgage system | 4.33 | 3 |
| Planning approval very slow and rigorous | 4.32 | 4 |
| High interest rate/cost of borrowing | 4.19 | 5 |
| Change in policy/ regulations | 4.12 | 6 |
| Lack of coordination between various agencies | 4.11 | 7 |
| Local opposition to fringe expansion | 4.07 | 8 |
| Disturbance from local landowners | 4.04 | 9 |
| Poor access to loan | 3.99 | 10 |
| Complexity of the planning process | 3.98 | 11 |
| Preservation of land for future sale | 3.98 | 11 |
| High development tax on construction | 3.97 | 13 |
| Changes in development charges | 3.93 | 14 |
| Uncertainty about development policies | 3.83 | 15 |
| Delay of government in installing infrastructure | 3.79 | 16 |
| Unavailability of long-term loan | 3.79 | 16 |
| Lack of coordination between developers and government in installing infrastructure | 3.72 | 18 |
| Limited scope for automatic approval of complying building applications | 3.69 | 19 |
| Uncertainty about planning standards | 3.64 | 20 |
| Local opposition to high-density development | 3.60 | 21 |
| Local opposition to urban expansion | 3.54 | 22 |
| High labour wage | 3.44 | 23 |
| Bad weather that delays or damages construction | 3.33 | 24 |
| Land topography | 3.33 | 24 |
| The land is not ripe for development | 3.30 | 26 |
| Lack of effective demand | 3.29 | 27 |
| Lack of cash flow planning for proper execution | 2.99 | 28 |
| N | 109 | |

To clarify what barriers to development are perceived, factor analysis was conducted to reduce and simplify the potential hindrances obtained from the literature into groups of hindrances. Suggested minimums for sample size in factor analysis include from 3 to 20 times the number of variables and absolute ranges from 100 to over 1000 (Mundfrom et al., 2005; De Winter et al., 2009). The data meet these criteria and are therefore suitable for factor analysis. The data validity and sampling consistency were tested further with

the Kaiser-Meyer-Olkin (KMO) and Bartlett's tests. The KMO value is 0.76 with a significance of $p=0.00$. When the KMO value is close to 1, it denotes compactness in the pattern of correlations and factor analysis is judged reliable. A minimum value 0.6 is commonly accepted for this type of study (Hoque & Awang, 2016).

Table 5 shows the rotated components that hinder housing development extracted by the factor analysis. The results indicate there are eight components that explain a total of 68.50% of the variance within the original variables. The reliability of the factors was tested using Cronbach's Alpha technique. The result produced a mean reliability coefficient of 0.898 (90%) indicating that the factors are reliable and acceptable (DeVellis, 1991; Norusis, 2004). This can be interpreted as developers, in general, perceive eight general groups of hindrances that slow housing development in the Lagos fringe area. Only barriers with a loading of at least 0.5 were retained to provide a phrase that captures the commonality among the items as shown in Table 5. The identified group of barriers are described below.

Table 5: Rotated Component Matrix on the Causes of Delay in Housing Construction in Lagos Fringe Area

| Reason for delay in construction | Components | | | | | | | |
|---|------------|------|------|------|------|---|------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Title documentation delay | 0.79 | | | | | | | |
| Planning approval very slow and rigorous | 0.74 | | | | | | | |
| Change in policy regulations | 0.59 | | | | | | | |
| Complexity of the planning process | | 0.80 | | | | | | |
| Delay of government in installing infrastructure | | 0.79 | | | | | | |
| Change in development charges | | 0.65 | | | | | | |
| Lack of coordination between various agencies | | 0.52 | | | | | | |
| The land is not ripe for development | | | 0.79 | | | | | |
| Lack of effective demand | | | 0.75 | | | | | |
| Local opposition to high-density development | | | 0.70 | | | | | |
| Lack of cash flow planning for proper execution | | | 0.68 | | | | | |
| Unavailability of long-term loan | | | | 0.79 | | | | |
| Poor access to loan | | | | 0.70 | | | | |
| Limited scope for automatic approval of complying building applications | | | | 0.59 | | | | |
| Weak mortgage system | | | | 0.55 | | | | |
| Land topography | | | | | 0.79 | | | |
| Bad weather that delays or damages construction | | | | | 0.70 | | | |
| High labour wage | | | | | 0.50 | | 0.51 | |

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|--|--------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Lack of coordination between developers and government institutions in installing infrastructure | | | | | | 0.69 | | |
| Local opposition to urban expansion | | | | | | 0.60 | | |
| Disturbance from local landowners | | | | | | 0.83 | | 0.69 |
| High cost of building materials | | | | | | | 0.80 | |
| High interest rate/cost of borrowing | | | | | | | 0.69 | |
| High development tax on construction | | | | | | | 0.58 | |
| Local opposition to fringe expansion | | | | | | | | 0.52 |
| Uncertainty about planning standards | | | | | | | | 0.57 |
| Rotated sums of squared loadings (% Variance) | 10.95 | 10.38 | 8.59 | 8.53 | 8.04 | 7.42 | 7.39 | 7.19 |

Notes: Extraction Method: Principal Component Analysis. Rotation Converged in 20 iterations. Rotation Method: Varimax with Kaiser Normalisation. Total Variance explained 65.50%. Kaiser-Meyer-Olkin Measure of Sampling adequacy= 0.76; df=406.00. Bartlett's Test of Sphericity=1562.677; Sig.0.00.

The first theme is named '*Institutional*' and explains 10.95% of the total variance among the variables. Variables loading on this barrier are: *planning approval very slow and rigorous, title documentation delay and change in policy/regulations*. Strengthening land institutions and frameworks is long overdue to provide support for developers. The needs include secure title support and obtaining building permits/approval. Secure title to land is regarded as crucial because of its profound effect on the working of land and capital markets. Therefore, there is a need for land institutions to be able to define, document, record, and enforce property rights and changes in a way that is transparent and accessible.

The second theme is named '*Inconsistency in government policy and regulations*' and explains 10.38% of the total variance. Variables loaded on this barrier are: *the complexity of the planning process, delay of government in installing infrastructure, change in development charges and lack of coordination between various agencies*. Many times, due to political instability and the various land agencies in the study location, some overlapping policies on land exist that negate the developers' efforts in housing development. These agencies need to be merged and unified to enhance sustainable policy to control and regulate the fringe development.

The third theme is named '*Lack of effective demand and land not ripe for development*'. Variables loading on this barrier are: *a lack of effective demand, land not ripe for development, local opposition to high-density development and lack of planning cash flow before execution*. Most of the time, governments are saddled with the responsibility of providing infrastructure such as electricity, water, drainage, and sewage system to enhance planned development. Unfortunately, these fringe areas lack the requisite infrastructure, therefore the land is seen as unfit for development.

The government should make an effort to provide adequate infrastructure through an infrastructure development schemes or funding agencies.

The fourth theme is named '*Finance*'. Variables loading on this barrier are: *weak mortgage systems, poor access to loans, unavailability of long-term loans and limited scope of automatic approval of complying building applications*. Mass housing development is almost impossible without funding (Nubi, 2000). Lack of a mortgage system has been a bane to the housing sector in the study area. Therefore, a need exists to build a mortgage system that can support the housing sector.

The fifth theme is named '*Climate change*'. The two variables with the highest loadings on this barrier are *land topography and bad weather that delays or damage construction*. *High labour wage* carries a smaller coefficient and is better related to factor seven on which it also loads. Climatic change revolves around topography and climatic conditions such as the seasonal flooding in the study areas, which hamper development and increases the cost of construction.

The sixth theme is named '*Lack of coordination between government agencies and developers in infrastructure provision*'. The two variables loading highest on this barrier are *lack of coordination between various agencies* and *lack of coordination between developers and government institutions*. *Local opposition to high-density development* contributes less strongly to this factor. Lack of coordination has resulted in conflicts between developers and the government in charge of the regulatory mechanism in the study area. Unfortunately, most governments have found it difficult to address this barrier.

The seventh theme is named '*High cost of construction*'. Variables loading on this barrier are: *high labour wage, high cost of building materials, high-interest rate/cost of borrowing and weak mortgage system*. Policies to encourage industrialisation of local building materials are lacking, resulting in high cost of building materials and the inadequacy of manpower in the construction industry.

The eighth theme is named '*Opposition to fringe expansion from local landowners*'. Variables loading on this barrier are: *disturbance from local landowners, local opposition to fringe expansion and uncertainty about planning standard*. This shows up in the form of lack of trust in government policy and policy mismatch among the various agencies. A coordinated and innovative approach towards making a uniform policy to enhance development and growth of the community is long overdue.

Game theory postulates action and reaction between two or more actors. In this study, the developers acquired land for housing development while government lacks activation strategies to promote development. This has led to various challenges, resulting in strategy mismatch, causing conflicts

between actors and bureaucratic bottlenecks that hamper housing development.

This study shows that challenges relating to the institutional framework (complexity of the planning process, difficulty of obtaining planning approval, title documentation delay) and inconsistency in government policy and regulations as well as lack of coordination within agencies and with developers are major impediments to housing development. Costs (labour, building materials, interest, tax) and unavailability or lack of access to loans are another source of concern. Seeking funding through financial institutions or alternative sources requires an acceptable title document (C of O) or GCT.

This study's findings affirm Chatterjee's (1981) study where he identified organisational inefficiencies and housing policy framework as propellant factors germane to new housing development. This is still critically important after almost four decades and is yet to be substantially addressed to enhance housing development initiatives of developers in the study areas. As a result, urgent attention is needed to address the issue. Also, further knowledge is needed about strategies for promoting local building materials for construction rather than importation while ensuring efficient land use policy in the fringe areas. In addition, there is a need to ensure provision of basic infrastructure while providing finance to enhance the enormous untapped revenue-generating potential and promote housing development.

4.3. Identification of Strategies to Increase Housing Development

To identify differences between strategies considered important by developers and those adopted by the government, opinions of both were collected and compared.

4.3.1. Developers' Preferences of Strategies to Increase Housing Development

Developers' opinions were sought as to what they perceived to be policy approaches that can help increase housing development on acquired land. They were asked to rate the identified strategies on a scale of 1 to 5 from 'Very unacceptable' to 'Very acceptable'. The mean ranking of all the six strategies are greater than 4.0 (as shown in Table 6), implying that the respondents accept that if adopted, these strategies will enhance housing development. Specifically, the strategies are: (1) adoption of public-private joint ventures in real estate investment, (2) decentralisation of land administration, (3) introduction of collaborative housing production policy, (4) collaborative financing, (5) provision of land free of charge and (6) provision of tax holiday. Provision of infrastructure was also specified by some of the respondents as another strategy needed to boost housing development.

Table 6: Developers' Preferred Strategies that can Encourage Increased Housing Development

| Strategy | Mean | Std. Deviation | Rank |
|---|------|----------------|------|
| Joint venture in real estate investment between public and private sector agencies. | 4.69 | 0.55607 | 1 |
| Decentralisation of land administration to ease the complex system of both enforcements of regulations and regulatory processes | 4.51 | 0.70204 | 2 |
| Collaborative housing production policy enactment | 4.49 | 0.83461 | 3 |
| Availability of collaborative financing to encourage urban fringe development | 4.42 | 0.74899 | 4 |
| Provision of tax subsidy e.g. provision of land free of charge | 4.40 | 0.8167 | 5 |
| Provision of tax holiday | 4.24 | 0.83776 | 6 |

Developers were asked to list strategies they would prefer to be adopted to motivate them to invest more in mass housing development. As shown in Table 7, 25.7% considered availability of land and access to housing development loans are of critical importance to motivate investment while an overwhelming majority of 62.4% believed that joint venture between government and developers in policy formulation would be a significant motivation for housing development in the Lagos fringe area.

Table 7: Developers' Preferred Strategy for Housing Development

| Strategy | Frequency |
|---|------------|
| Joint venture/collaboration in policy formulation | 68 |
| Both land availability and access to housing loan | 28 |
| Land availability | 10 |
| Favourable policy on building materials cost, labour cost | 2 |
| Indifference | 1 |
| Total | 109 |

4.3.2 Land Bureau Officers' Perspective on Housing Development Strategies

Developers' preferred strategies were compared with those of government officials to identify common positions, if any, among the stakeholders on strategies that could encourage increased development of housing units. When asked about what policies are in place to enhance immediate housing development on land acquired in the fringe areas, 32.0% of the Land Bureau officials mentioned that the conditional clause that acquired land must be developed within two years of being issued a C of O is a major strategy for encouraging housing development and 19.0% indicated that the development of the housing scheme/urban physical planning initiative is being used, as shown in Table 8. This does not show that the Land Bureau has a clear policy or strategy to collaborate with developers in the fringe areas.

Table 8: Policies for Immediate Housing Development

| Policy | Frequency |
|--|------------------|
| Conditional clause for not developing acquired land within 2 years in C of O | 10 |
| Development of housing scheme initiative/ Urban physical planning initiative | 6 |
| Provision of master plan | 2 |
| No answer | 13 |
| Total | 31 |

The conditional clause was the most common policy and the preferred strategy. This means that a punishment clause is preferred and being used rather than collaboration. This is also evidenced in Table 9 where all but one potential collaborative synergies were reported as not being used often. The Land Bureau officers were asked to rate the extent to which seven collaborative strategies are being used to enhance immediate housing development of land acquired in the fringe areas. A scale of 1 to 5 was used (5= ‘*Very often*’, 4= ‘*Often*’, 3= ‘*Sometimes*’, 2= ‘*Rarely*’, 1= ‘*Not in existence*’). The results reveal that there is little or no collaborative synergy between the government and REDAN in the fringe areas. Collaboration with secondary stakeholders (individual landowners) was ranked most common. This shows the weak synergy that exists between REDAN and government agencies, resulting in conflicting views of the parties in the management and development of the fringe areas.

Table 9: Government Collaborative Synergy to Enhance Immediate Housing Development on Land Acquired in the Urban Fringe

| Government Collaborative Synergy | Mean | Std. Deviation | Rank |
|---|-------------|-----------------------|-------------|
| Collaboration with secondary stakeholders (Individual Landowners) | 3.74 | 1.389 | 1 |
| Collaboration with Financial Institutions | 3.48 | 1.261 | 2 |
| Collaboration with Housing Finance Organisation | 3.48 | 1.235 | 2 |
| Collaboration with the Built Industry Professionals | 3.38 | 1.308 | 4 |
| Collaboration with Housing Association/ REDAN | 3.29 | 1.442 | 5 |
| Inter government Collaboration | 2.96 | 0.406 | 6 |
| Collaboration with Residents’ Organisation/Association | 2.94 | 1.365 | 7 |

Note: N=31.

Table 10 depicts a list of strategies the 31 Land Bureau officers would prefer government put in place. The results suggest the need for creating awareness of sustainable strategies to enhance housing development through capacity building. The fact that over 25% of the respondents are indifferent to the

strategies adopted in their various departments shows the need for human capacity re-engineering.

Table 10: Land Officers’ Preferred Strategies for Fostering Housing Development in the Lagos Fringe Area

| Strategy | Frequency |
|---|-----------|
| Conditional clause in the C of O that land must be developed within 2 years | 15 |
| Appraisal of construction plan in line with financial capability | 3 |
| Prompt granting of development permit | 2 |
| Provision of infrastructural facilities | 3 |
| Indifference | 8 |
| Total | 31 |

Further, the officials were asked to indicate other general options they would like to suggest for the immediate development of land acquired in the fringe areas. As shown in Table 11, there was no overwhelming consensus. A majority of 61.3% (19) were unable to suggest any option that could be employed. Four suggested that sales agreements should be duly registered in court to ensure adherence to the development period and another four indicated provision of inter government policy as a suggested strategy. This clearly shows that Land Bureau officials either lack suggestions or do not care about strategies to foster immediate housing development.

Table 11: Land Officers’ Suggestions for Other Strategies for Encouraging Immediate Development of Land Acquired in the Lagos Fringe Area

| Strategy | Frequency |
|--|-----------|
| No response | 19 |
| Sales agreement duly registered in court to enforce development period | 4 |
| Provision of inter government policy | 4 |
| Appraisal of the financial capability prior to the allocation of land | 2 |
| Provision of infrastructure facilities | 2 |
| Total | 31 |

The analysis shows that the current strategies focus on control of developers if they do not act to construct housing soon after acquiring land. When Land Bureau officials were asked to suggest options that can foster immediate development of land acquired, the majority had no suggestions whereas developers indicated preference for joint ventures with relevant agencies on housing investments policy and infrastructure development. This signifies developers’ preference for inclusion in the policymaking process as this will enhance ease of acceptability and adoption as well as conflict reduction between developers and government agencies on land matters. Yates (2011), Iyanda (2015), La Cava (2016) and Wubneh (2018) affirm that when these strategies are not considered, development of housing units suffers significant

delay. This implies that appropriate partnerships around institutional framework and infrastructure development will help remove the most serious barriers to development that the developers identified in the Lagos fringe area.

5. Conclusion and Recommendation

The players and actors in this study are the developers and key Land Bureau officials. The developers start the process through land acquisitions and initiating development plans towards obtaining appropriate documents (C of O) to secure their rights. Developers are dominant in the fringe areas in the sense that they often initiate projects through opening up access routes, motivated by maximising financial profit. However, despite ample evidence of demand for housing in the Lagos fringe areas, the study shows that only about 10% of the land acquired in the study areas for housing since 2004 has been developed despite government incentive policies promoting land titling and documentation. It is evident that bureaucratic bottlenecks in administration have set back policy implementation. Generally, government has been more reactive, that is, responding to developers' land acquisition initiatives rather than being proactive. Government strategies are seen by developers as grossly inadequate for enhancing housing development. Moreover, the policies adopted by government are at variance with developers' perceptions and expectations of what is necessary. This seems to be the major setback for adequate housing development on land acquired by developers in the fringe areas.

More strategic actions are recommended in the form of collaborative efforts and policy interventions through the introduction of a Housing Development Act (HDA) to provide legislative backing for suggested improvement strategies. This will resolve conflicts amongst stakeholders as well as unstable and ineffective policy response in the fringe areas. Also, there is need for decentralisation of land administration processes to ease the complex system developers currently need to navigate in order to achieve their housing investment aspirations. If Land Bureau agencies are decentralised at the local government level, it will create more awareness and better understanding of policies. This suggestion assumes that local governments can be empowered to control these activities. However, this proposal may be unrealistic because the local governments currently seem uncoordinated and are still struggling for autonomy. As such, if coordinated and effective measures are to be undertaken on urban fringe growth, then there may be a need to use or create an Urban Fringe Development Control Agency (UFDCA) with powers to control the fringes, overseeing land acquisitions and development until local governments have the capacity to effectively do so. Such powers could have a limited time duration, with the agency being dissolved once an area is reasonably well developed. Further, there is need for careful enforcement of appropriate regulations and regulatory processes. The government-adopted strategy of applying the forfeiture clause to ensure quick housing development must be harmonised with the developers' expectations of

collaborative housing strategies through infrastructure provision to enhance fringe area development.

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Urban Regeneration and the Perceptions of Commercial Real Estate Market Participants: The Case of the Johannesburg Inner City

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Abstract

Many factors contribute to urban decay in inner city locations as real estate investments fall and industries disappear or move to more attractive locations. In South Africa, the attainment of democracy and the resultant 'white flight' in favour of decentralised locations precipitated urban decay. Commercial real estate has spill-over effects on foot-count and absorption rates on inner city real estate. It helps stimulate redevelopment of other property types such as apartments, which contribute to the overall economic revitalisation of the decayed inner city. This paper examines the challenges faced by real estate investors in regeneration projects in Johannesburg Inner City (JIC). The paper uses an exploratory qualitative research design, where interviews were conducted with commercial real estate participants in JIC. The paper identified five challenges faced by commercial real estate market participants regarding investments and operations: building acquisition, physical public infrastructure, homelessness, lack of financing, and crime. An understanding of these challenges faced by commercial real estate market participants is valuable for policy-makers trying to attract commercial real estate investments to the inner city. Successful regeneration projects will promote urban renewal and revitalise economic activities in the decaying regions. The identified challenges will illuminate municipal programs and policies needed for the development of inner cities.

Keywords: Johannesburg Inner City; Commercial Real Estate; Qualitative Research; Urban Regeneration; South Africa

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1. Introduction

Urban decay is a problem that represents a state of disrepair and abandonment of previously functioning inner cities by businesses in preference for better locations (Ferilli et al., 2017; Goo, 2017). Factors that contribute to urban decay include capital flight, hijacked and dilapidated buildings, high local unemployment, poverty, homelessness and squatting living, political marginalisation, crime and elevated levels of pollution. It is difficult to evict homeless people from their settlements (Walsh, 2013). In South Africa, the attainment of democracy and the resultant 'white flight' in favour of decentralised locations represents another major factor in urban decay (Delgado & Zeuli, 2016; Hoogendoorn & Gregory, 2016; McCarthy, 2016). Most recently, Frantál et al. (2014) highlighted global economic stagnation as another cause for urban decay in some locations as real estate investments fall and industries disappear or move to countries with lower labour costs.

Regeneration of inner cities helps in reducing urban decay. Attracting property investments into urban regeneration locations will help in revitalising decaying inner cities (Adair, et al., 2003b; Didier et al., 2012; Goo, 2017; Massey & Gunter, 2020). In this context, urban regeneration attempts to create long-term solutions that improve economic, social, physical, and environmental conditions of inner cities (Zheng et al., 2014). The City of Johannesburg is implementing urban regeneration programs, such as City Improvement Districts (CID), to attract private capital to inner city districts and promote economic development; however, inner cities represent high risk locations to real estate investors, which pushes investors away (Carter, 2006; Adair et al., 2007). Investors choose to avoid high risk locations in favour of moderate risk locations, which are usually found in decentralised areas (Adair et al., 2003a; Bethlehem, 2013; Grant & Thompson, 2015). As a result, understanding property investment risks in the urban regeneration process is essential for achieving regeneration objectives.

Urban regeneration is very important as it revitalises decaying urban spaces. It brings urban spaces into new economic uses that will help drive the economy. So, understanding issues of urban regeneration in inner city Johannesburg will go a long way in trying to reactivate economic activities in the city. It will also address other social issues such as crime, security, and homelessness. This, in turn requires an understanding of concerns that commercial real estate market participants such as financial institutions, developers, investors and property management companies have regarding the areas that require regeneration.

The purpose of this study is to assess the challenges faced by commercial real estate market participants regarding the regeneration of Johannesburg Inner City (JIC). The research, therefore, provides municipal policy-makers with an understanding of the concerns that commercial real estate market participants have. The understanding of these challenges can help in strategising inner city regeneration projects for economic development of the city.

The remainder of this paper is structured as follows. Next, background on urban regeneration in the JIC is provided and a theoretical framework for the empirical investigation is presented. Then, the data collection and analysis are discussed, which is followed by the results and a conclusion.

2. Urban Renewal in Johannesburg, South Africa

JIC is categorised into six major districts with unique characteristics: the Commercial District, Midtown District, Station District, Braamfontein, Exchange District, and Financial District (Bethlehem, 2013; Thompson, 2015; Hoogendoorn & Gregory, 2016). The districts have various functions and property uses that serve to distinguish them. JIC used to be the economic heart of Johannesburg, but its economic prominence has deteriorated. Following the end of apartheid, the JIC has experienced urban decay, capital flight and a decline of economic activity causing the inner city to deteriorate (Bethlehem, 2013). It is characterised by chronically neglected public infrastructure and lack of investment.

Hillbrow lies at the centre of the inner-city in the commercial district, densely populated with economic migrants and refugees. Hillbrow is a prominent example of urban decay in the JIC. It was formerly an affluent residential neighbourhood, but many middle-class white residents moved out at the end of apartheid in 1994. They were replaced by low-income workers and unemployed people, many of whom were refugees and illegal immigrants from neighbouring countries.

Many businesses that operated in the area followed their customers to these suburbs. Some apartment buildings were 'hi-jacked' by gangs, who collected rentals from residents but failed to pay the utility bills, leading to termination of municipal services and a refusal by the legal owners to invest in maintenance or cleaning. Occupied today by low-income residents and immigrants, these areas are characterised by heavy overcrowding, proliferation of crime, drug dealings, illegal businesses, and property decay. The preferred decentralised locations were Randburg and Sandton, which subsequently began to develop (Hoogendoorn & Gregory, 2016).

The City of Johannesburg added regeneration to its Integrated Development Plan (IDP) through the Johannesburg Development Agency (JDA), which was established in 2001 and tasked to implement and facilitate regeneration in the JIC (Goo, 2017). Under the JDA, a development framework was initiated to create a concept of 'precincts' that specialised in specific activities. Ultimately, legislation that addresses regeneration within the Urban Development Zones (UDZs) was developed through City Improvement Districts and Business Improvement Districts (HDA, 2013; JDA, 2015).

Different stakeholders in the process of urban regeneration contribute to defining regenerative strategies in the form of Public Private Partnerships (PPPs) (Kort & Klijn, 2013). Urban regeneration strategies exist in multiple formats, which make use of different approaches and applications. Harada

and Jørgensen (2016) further substantiates the adaptability of urban regeneration and illustrate how regeneration strategies make use of a ‘custom fit’ process due to locations’ unique circumstances. It is understood that the effectiveness, strengths, and weaknesses of regeneration strategies vary according to location.

Established in 2003, The Trust for Urban Housing Finance (TUHF) uses a specialist financier strategy to lend to investors, particularly funding refurbishment and improvement of residential properties within the inner city. This strategy was developed in response to commercial banks failing to understand the investment dynamics of the inner city and hence not being interested in lending to real estate investors in the inner city (TUHF, 2018). TUHF gets funds from the South African National Housing Finance Corporation, Futuregrowth, the Public Investment Company (PIC), and Standard Bank. To date, TUHF has achieved circa R5 billion ‘loan book’ for apartment units in various locations throughout the inner city and has proven effective in attracting possible investors by charging below market fees (TUHF, 2018). As an example of the effectiveness of this strategy to facilitate urban regeneration, the development company Propertuity predicted a total of 4,875 additional entry-level apartments for sale (condos) and for rent by the end of year 2020 targeted to students, low-middle income individuals and young professionals (Propertuity, 2016).

2.1. Urban development zones

Urban Development Zones (UDZ) are used to induce and facilitate urban development through regeneration. This method provides an incentive for private sector investments in demarcated zones through a straight-line depreciation allowance of 20% of the cost of improvement over 5 years on dilapidated properties and tax allowance (Amirtahmasebi et al., 2015). A national tax incentive program was introduced in 2003 by the Ministry of Finance through which municipalities identify UDZs as areas of priority that must be factored into regenerative initiatives. The tax deduction is 20% in the first year plus 5 % in the following 4 years for the cost of erecting, extending, improving or adding an entire or part of a building of a minimum size of 1,000m² in the JIC (HDA, 2013; Amirtahmasebi et al., 2015). The incentive takes the form of a tax allowance allowing accelerated depreciation over a period of five years for investments made in either the refurbishment of existing property or the creation of new developments within the inner city. Thus, any tax-paying, property-owning individual or entity may claim the tax benefits of the UDZ incentive.

2.2. City Improvement Districts (CIDs)

Sub-Saharan CIDs are geographical areas in which owners agree to fund supplementary services to existing services provided by local authorities (HAD, 2013; CID Forum, 2018). In 2004, four CIDs in JIC levied a monthly average of R2,000 to more than R5,000 for services such as cleanliness and safety of commercial districts (Heimann & Oranje, 2008). This ensures marginal control and improvements to certain services that are not

sufficiently delivered by the municipality. Security measures, litter collection, and maintenance of public spaces are performed more efficiently. The CIDs in JIC are Braamfontein Improvement District, Newtown Improvement District, Ellis Park Improvement District, Yeoville Improvement District, and Maboneng.

UDZs and CIDs have spearheaded the success of regenerating the inner city, combating crime, and delivering services (Raco et al., 2008; Bethlehem, 2013; Thompson, 2015; Johannesburg CID Forum, 2018). Maboneng precinct is considered a success in the regeneration of JIC using CIDs. It consists of 15 blocks (industrial and commercial space), developed by a company called Propertuity in 2008 (Hoogendoorn & Gregory, 2016; Stryjakiewicz et al., 2017).

Despite efforts made towards incentivising and attracting investors to the inner city to drive the process of urban regeneration, challenges still remain (Harada & Jørgensen, 2016). So far, the private sector anchors regeneration projects within JIC districts, where the Johannesburg Development Agency sets the standards for creating and facilitating initiatives that maximise private sector participation while promoting efficient and sustainable urban regeneration in meeting some of the Sustainable Development Goals (SDGs) (McGreal et al., 2000; Amirtahmasebi et al., 2015; United Nations, 2019).

3. Conceptual Framework

Past studies on renewal and regeneration have focused on social and economic aspects, but are silent on assessing the concerns of commercial real estate market participants in an African city such as Johannesburg (Goo, 2017; Cattel et al., 2018; Massey & Gunter, 2020). There is a need to find ways to maximise the positive while minimising the negative social, physical, environmental and economic effects of property investing (Pivo & McNamara, 2005; Zheng et al., 2014). To encourage private investments and achieve urban regeneration and economic development objectives, municipalities need to understand the concerns of commercial real estate market participants regarding inner cities. These concerns can be categorised and analysed using a conceptual framework based on the four phases of urban regeneration adapted from extant literature (Adair et al., 1999; Adair et al., 2000; Ghent et al., 2019).

The four phases of inner city regeneration are (i) property acquisition, (ii) retrofitting/re-purposing, (iii) disposition and (iv) ownership. The following section presents an overview of different potential risks that commercial property market participants are exposed to in the JIC during different phases of the regeneration process.

In the property acquisition phase, risks exist, for example, with regards to confirming ownership of properties or obtaining access to the acquired building. For instance, the deeds registry may not show who the owner is. In other situations, the property may have been hijacked and controlled by

gangsters. The tender processes suffer from a lack of transparency, particularly regarding the listing of all properties in arrears for sale by the municipality. In the retrofitting/re-purposing phase, risks include delays in planning or construction leading to cost overruns. All these risks, in turn, impact how development companies service construction loans. In the disposition phase, market risk exists, which results from a mismatch between supply and demand on completion, leading to discounted asset prices. In the ownership phase, an important risk is tenant delinquency whereby tenants fail to pay rent, thereby negatively impacting real estate performance.

4. Data Collection and Methodology

Previous studies investigating gentrification in African cities have used surveys (Goo, 2017; Cattell et al., 2018; Massey & Gunter, 2020) or interviews with experts on commercial real estate (Munzner & Shaw, 2014). Commercial real estate has a positive effect on revitalisation, which increases foot count and absorption rates. It helps stimulate redevelopment of other property types, such as apartments, which contribute to the overall economic revitalisation of the decayed inner city (Adair et al., 2007; Browning et al., 2010). The paper employs phenomenological methodology and is designed as an Exploratory Qualitative Study (EQS) within the case study of JIC. An EQS is designed to explore the preliminary nature of the problem to be solved in order to better understand it rather than offer a final and conclusive solution to existing problems under investigation (Gorynia et al., 2007; Finlay, 2014). The EQS design also helps to detect possible areas for advanced investigations as the methodology offers the researcher flexibility to do deeper analysis. In the empirical investigation of this study, an interview approach was used. The study is framed within a context of the different phases of urban regeneration.

The methods employed are based on the use of structured interviews with key urban regeneration experts in Johannesburg. Following the conceptual framework, the following questions on the purchase (acquisition phase), development (retrofitting phase), selling (disposition phase) and holding (ownership phase) of regeneration properties were developed to be included in the interviews.

1. What are the challenges to property acquisition regarding transparency in ownership and the tale of hijacked buildings, quality of buildings, and location of buildings? What triggers private investment? What role does infrastructure and social infrastructure play? What solutions do you suggest?
2. What difficulties have you faced regarding retrofitting/re-purposing of buildings? How easy is it to get approvals for rezoning a building from previous use? Are there any other costs and delays that affect development? Is retrofitting something you consider putting your money into as private equity or institution? What solutions do you suggest?

3. For those who have retrofitted buildings, what problems did you face in the disposition of the asset in terms of pricing risk and the nature of demand in the JIC? What solutions do you suggest?
4. Holding commercial real estate involves a lot of challenges/risks regarding space rental market fluctuations, what are your experiences to tenants coming back into JIC? Describe the nature of risk regarding private equity, structured debt, real estate business, mortgage service, and tenant delinquency.

The interview questions were tested (pilot) using five property real estate investors through face to face contact in July 2018. From these insights, the interview protocol was improved. We accessed a list of companies from documents found on the CID Forum website, an organisation involved in JIC, and purposefully selected participants using a snowball technique to invite commercial real estate participants. Next, researchers sent information sheets and consent letters to participants inviting them to take part in the research study. The scheduled interview dates and time were organised with those who gave written consent. The participants had five to 10 years' experience with regeneration of the inner city. This resulted in a purposefully selected sample of 27 experienced individuals working in JIC commercial real estate of which seven are property developers, five are institutional investors, six are professional property managers, five are lenders, and four are individual commercial business owners. Interviews were conducted over a period of four months from August to November 2018. A total of 15 face-to-face interviews were conducted while an additional 12 interviews were conducted telephonically. The interviews each lasted 30 minutes.

Tape-recorded interviews were transcribed word by word. To verify accuracy, all transcriptions were read back to the participants for confirmation of the key points. Interpretive Phenomenological Analysis (IPA) was utilised for thematic analysis following the four stages of data analysis. Stage 1 involved reading transcripts repeatedly to ascertain significant points from the participant. The phenomenological position implemented here was to perceive the agreement between participants and their explanations. In stage 2, the main explanations identified were re-read and coded according to how the researcher interpreted them. Stage 3 involved manually coding clusters into themes and sub-themes, showing how they were related. The fourth and final stage involved comparisons across the body of transcriptions to determine significant dominant themes supported by captions from the transcriptions. These themes are reported under the results section of this paper. The themes highlight the preliminary nature of the inner city regeneration problem.

5. Research Results

Following the conceptual framework explained in section 3, there are five concerns identified by commercial real estate participants that discourage private investments in ways that deter urban regeneration and economic

development of inner cities. These concerns and possible solutions are discussed in the following sections.

5.1. Property acquisition

The results indicated inefficiencies in the way the municipality handles property acquisition for regeneration purposes thereby hampering the success of regeneration projects in the acquisition stage. The study finds that the tender system is not transparent enough for private property investors to acquire buildings for regeneration purposes in this phase. In some instances, there is no information on who owns the building. The main challenge highlighted by participants is that they do not find well-located buildings on the municipality tender list. What they find on the list are buildings located on the outskirts of Johannesburg's inner city, which are not as favourable investments as they represent higher risk. Participant 12 said he would rather wait for the right location than get involved in properties on the outskirts of the inner city.

One solution for this problem is for the City to upgrade its tender management software to make it easier and more user-friendly for interested people to access and search available properties for sale. Another improvement to the software system could also include the verification of ownership with the deeds office before the City lists properties for sale.

5.2. Physical public infrastructure

A recurring theme among participants was '*delays in upgrading and maintenance of infrastructure*', which is causing bursts in the sewer and water systems in the JIC. These challenges exacerbate cost overruns in the retrofitting phases and regeneration projects become more costly. The bad state of physical public infrastructure renders inner city properties unfavourable to lenders, making it difficult for commercial real estate developers to access construction loans. Participants highlighted that "*municipalities are not proactive in taking greater responsibility to upgrade and maintain bulk infrastructure after a change in political structures.*"

Participants suggested that municipalities must invest in the upgrading of sewer and water systems, storm water drainage, roads and electrical systems, which can allow the ownership/operation to succeed. One approach to financing these infrastructure improvements are Public Private Partnerships (PPP), where future revenues can be shared between public and private entities (Grant & Thompson, 2015). These revenue-shared PPPs are able to mobilise private funds into inner cities, as local authorities have failed to do it alone without collaboration with the 'efficient' private sector. Civic organisations should take an active stance on encouraging municipalities to take a greater responsibility in fostering PPPs to raise funds towards upgrading bulk infrastructure.

5.3. Finance challenges

The study finds a huge challenge in the disposition phase, where the mismatch between supply and demand on completion leads to discounted asset prices. Participants highlighted that finding debt finance to purchase buildings in the JIC is a challenge as 'highest and best use' analysis channels funds into projects in better locations with less lender risk. Previously, investors preferred to invest their capital in better locations in the northern suburbs rather than the JIC. There is, however, a positive trend noted by participants where the main banks (lenders) have returned into inner city micro-locations. This is because investors have gained confidence in the returns of 9-12% on new high rise buildings (hotels, office blocks and residential units), the UDZ supported buildings, which has motivated banks such as Absa, Standard Bank and Nedbank to provide capital for 30% loan-to-value (LTV) ratios towards regeneration. This is the reason for their strategic location into JIC.

Participants recommended PPPs as a solution to financing projects for regeneration in the inner city. These PPPs should be structured for returns in the long term as focus on short-term rewards is prohibitive. The City should give priority (finance) to well established developers who are able to focus on long term benefits of urban regeneration. This avoids speculative developers who 'flip' buildings for resale without great care about the durability of the building and the health and safety of residents or other space users. Rebates and tax incentives make it possible to fast track urban regeneration. The preferential depreciation schedules for property improvements and refurbishment in UDZs are able to reduce costs associated with UDZs and makes it possible for investors to participate in capital intensive projects. Thus, UDZs act as a pioneering strategy in attracting investment into the inner city, which subsequently speeds up urban regeneration.

5.4. Housing and homelessness

Inner cities are characterised by homelessness and overcrowding of people, crime, pollution and other negative externalities, which affect businesses and residents in the area. The increased homelessness in JIC drives investors away as social housing and social infrastructure are in dilapidated conditions. Participants highlighted the need for municipal commitments to upgrade and maintain social infrastructure as a precursor for successful regeneration that makes the buildings feasible and viable, which stimulates inner city investments. The problem however is that the provision of social housing is usually affected by change of governance. This is because each new mayor usually institutes new policies towards homelessness. This is a daunting exercise because the municipality is failing to provide alternative space for the homeless.

In South Africa, corporate social responsibility is not sufficient to regenerate inner cities. There is need for collaboration between the private and public sectors to address structural inefficiencies of local government as well as

improve city council's efficiencies and city revenues (Adair et al., 2007; Li, 2015). Because the City has limited funds to accelerate regeneration, there is a need for the city council to be more involved and proactive in improving the social infrastructure through PPP models, which will raise funds for regeneration. In addition to social housing, there is a need for growth-focused mixed use properties in the inner city districts. To help such developments, an efficient zoning process is needed that reduces rezoning delays for mixed use retrofits. In this context, participants emphasised the importance of program continuity when new mayors take office. The success of the JIC regeneration process hinges on well-functioning PPPs where the government focuses on physical infrastructure, social housing, and other services, while real estate investors focus on buildings to preserve investment value.

One concern that came up in the interviews is the deteriorating cleanliness and aesthetics of inner city districts. Participants detailed how stakeholders must aim at revamping and improving the look to attract investors and tenants. Participants believed attention to detail and the aesthetic of the inner city requires consistent and adequate building management, property management, and community involvement to maintain a certain level of quality in the JIC. Adopting sustainable ways of living such as improved and subsidised recycling that promotes high standards of hygiene may be able to mitigate challenges to private real estate investment created by a large homeless population. Another solution would be scheduled community cleaning days by the homeless, who can be organised to improve aesthetics for JIC to attract investors and tenants.

5.5. Crime

Crime is an obstacle in JIC and an important deterrent to private property investments. The implementation of CIDs within the inner city has been instrumental in combating crime to some extent. Private developers that have regenerated parts of the inner city have employed private security guards to work towards making the city a safer place, making it more attractive to tenants. When commercial real estate professionals work together in CIDs, it allows them to cooperate for the good of the city and this encourages other participants to take part in the regeneration of the inner city (Kährlik et al., 2016).

Participant 18 is of the opinion that CIDs help the City in attracting investments into the inner city but crime, especially violent crime, in the JIC is still an obstacle for commercial real estate investors. They shy away from these areas, preferring more secure locations. One of the participants says: *"I am a business owner; I have to close shop before 5 pm because of crime, although it would make business sense to open until late."* This shows that the crime situation in JIC is a big deterrent to investors. Furthermore, the participant says: *"How can we invest into a property that does not make enough revenue due to crime as businesses are not free to generate enough revenue."* As a solution, most participants recommended joining the regenerated CID in parts of the inner city that have become safer and more

attractive to invest in. *“Regenerated parts of JIC in CIDs make the city a safer place, making it more attractive.”* Membership fees can be more affordable by charging fees according to business turnover rather than a flat fee. This reduces costs paid by smaller companies who join a CID in the inner city. Another solution is for the City and police to collaborate with CIDs to install and manage surveillance cameras on streets.

6. Conclusion, Recommendations and Implications

Attracting property investments into urban regeneration locations provides a long-term solution to urban decay. Through an interview-based empirical investigation, five themes emerged highlighting the challenges and possible solutions towards regeneration in the JIC. These themes included lack of transparency in acquisition of properties, financing issues, upgrading of physical public infrastructure, inadequate social housing and homelessness, and crime. The main challenge in the acquisition of regeneration properties is that the City of Johannesburg tender system is not transparent enough to help investors identify available properties in locations of interest. To make regeneration successful, municipalities should strive for efficiency in improving the tendering process during acquisition. This speeds up the process and removes speculative investors who will not partake in the retrofitting/re-purposing, disposition and commercial real estate ownership stages of the regeneration process

Obtaining debt financing and attractive equity capital is another challenge where ‘highest and best use’ analysis channels funds away from inner cities in favour of better locations. To counter this in the disposition stage, the government can structure regeneration PPPs, where shared-value financing projects offer economic benefits in the long term. We recommend commercial real estate developers use UDZ incentives in order to make inner city investments viable. The UDZ incentives will help negate the costs associated with CID fees required in the JIC. Through tax breaks in UDZs, private investors are able to participate in capital intensive projects deemed ‘efficient’ in delivering regeneration properties.

Delays in upgrading and maintenance of the physical infrastructure are problems that drive investment away from JIC. Investors prefer more lucrative locations for commercial real estate retrofits and new buildings as a solution. Furthermore, civic organisations should take a strong stance in forcing municipalities to take greater responsibility in fostering effective PPPs that are able to raise funds for upgrading and maintaining bulk infrastructure such as sewer and clean water, storm water drainage, roads and electrical systems where the focus is on revenue sharing. Possible interventions include tax rebates and incentives to upgrade physical infrastructure, using PPPs to finance regeneration projects and retrofitting buildings to mixed use which also helps with homelessness. Installing and managing surveillance cameras on streets helps in combating crime. It is through PPPs that urban regeneration can support physical public infrastructure, and social infrastructure (schools, health facilities, and diverse

variants of social housing) that cater for homeless and unemployed people within the inner city. This helps in the disposition phase where prospective buyers get the assurance that the area is well maintained and is not likely to regress and cause more urban decay in the future.

Homelessness affects a location's aesthetics, which in turn drives away investors because it reduces attractiveness to potential tenants in the operation phase. To solve this problem, social housing should be a priority for the City in which private developers receive financial incentives to regenerate properties into mixed use buildings that include hostels. These hostels can be used by homeless people, thereby minimising concentrated slums. Lastly, crime is a major reason why commercial real estate market investors shy away from JIC locations. CIDs represent a solution to reduce crime and address safety concerns of residents and businesses.

This paper provides municipal policy-makers with an understanding of the concerns of commercial real estate market participants regarding operations and investments in the inner city. The success of JIC regeneration hinges on well-functioning public-private partnerships where government focuses on infrastructure and other services while private real estate investors focus on the full value chain of buildings as investment assets. Through well-structured PPPs, developers, financial institutions, and property management companies are able to expedite urban regeneration in decayed locations.

Future research on the urban regeneration of inner city districts in emerging countries could investigate whether the issues raised in this paper differ across Africa or between continents. Furthermore, a quantitative research approach to regenerated properties could measure the impact of CID levies/cost on investment returns given that commercial real estate developers use UDZ incentives in feasibility studies to justify inner city investments.

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Approaching Day Zero: Effects of Water Scarcity in Construction Projects in South Africa

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Abstract

Water is a precious resource that is essential for human life and useful for development. This paper explores the effects of water scarcity on the construction industry in the South African context. Primary data were collected using semi-structured interviews in the Western Cape, Gauteng, Mpumalanga and Limpopo Provinces. The study found that construction projects require much water, however, the volume of water usage varies depending on the type and magnitude of the construction project. A lack or scarcity of water can derail projects or bring them to a complete halt. Therefore, construction companies need to take measures to mitigate the effects of water scarcity during their construction projects by factoring water scarcity into their risk assessments. This requires construction companies and their clients to agree on the mitigating factors in case of water scarcity. Project pre-planning is vital to mitigate some of the challenges related to water scarcity. Construction projects requiring a high volume of water need not only rely on water that can be provided through government infrastructure, but should also source water through other means, such as drilling boreholes, recycling, and by applying water saving techniques.

Keywords: Climate Change; Drought; Water Scarcity; Construction Projects; Construction Industry; South Africa

1. Introduction

Water is a necessity of life and demand for it is ever-increasing across the globe. In recent years, the world has witnessed conflicts over fresh water (Johnson, 2016). The increasing human population and climate change

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continuously exacerbate water demand. Therefore, water and water scarcity issues require increased attention in both the public and private arenas.

Water is also a vital resource for construction projects, which consume a substantial amount of water during their life cycles (McCormack et al., 2007; Olsen et al., 2017; Wang et al., 2019; Wu et al., 2019). Construction is one of the main contributors to the South African economy due to its backward and forward linkages to other sectors (Oguntona et al., 2019). However, water scarcity in South Africa could potentially derail the construction industry and property development. The recent droughts and lack of water have resulted in water-shedding in some parts of the country. This paper explores the effects of water scarcity on the construction industry in South Africa, with reference to the following provinces; the Western Cape, Gauteng, Mpumalanga and Limpopo.

This paper is structured as follows: The first section lays the necessary context for the study. The second section comprises the literature review. The third section furnishes the data and analysis, and the last section concludes the paper.

2. Background of the Study

Studies suggest that sub-Saharan African countries will face the risk of water stress in the coming decade due to climate change (Arsiso et al., 2017). The effects of climate change are increasingly felt in South Africa through recurring droughts¹, causing empty or critically low levels of dams and drying boreholes (Calzadilla et al., 2014; Donnenfeld et al., 2018). In Cape Town, water scarcity escalated across 2015-2018, leading to the highly publicised Day Zero, that is, a countdown towards the day when the taps would run dry. Although Cape Town was hit hard, Bischoff-Mattson et al. (2020) argue that Gauteng Province was also just one drought away from devastating water scarcity. Other parts of the country that are prone to drought are Limpopo and the Free State. It stands to reason that a drought-prone country should have developed better coping mechanisms and should have striven to improve its water infrastructure. However, the country is still characterised by poor water infrastructure (Donnenfeld et al., 2018). The recent droughts are once again exposing the poor water infrastructure in the country. This poses a challenge to the South African government to develop a coordinated plan to address water scarcity, which threatens lives, livelihoods, and the development agenda.

The construction industry is among the key driving forces of the socio-economic development of any nation (Giang & Pheng, 2011; Durdyev & Ismail, 2012; Oyewobi et al., 2015). Within the national economy, the construction industry is dynamic, has highly visible output, and can stimulate

¹ Since the 1920 drought, the country has observed droughts in 1964, 1980, 1981, 1986, 1988, 1990, 1995, and 2004 2007/2008, and 2015/2016

sizable economic growth (Giang & Pheng, 2011; Durdyev & Ismail, 2012). It contributes to shaping socio-economic dynamics by providing infrastructure such as roads, dams, schools, hospitals, railway lines, and bridges. However, water scarcity has the potential to weaken the construction industry, which would have devastating effects on the economy and many livelihoods. Therefore, it is crucial to understand the effects of water scarcity on this industry, especially since this is an under-researched area.

Water is used in multiple stages in the construction process. McCormack et al. (2007) noted that water is used in the extraction, production, and manufacturing of materials as well as during on-site construction. There are two types of water usage in the construction industry, namely embodied water and direct water. Embodied water is the water that is used in the production of construction materials, while direct water (or induced virtual water) is the water that is used at the construction site (Mannan and Al-Ghamdi, 2020).

Embodied water is mainly used in the industrial sector, which supplies construction materials, including steel, cement, and glass. The industrial sector is the second-largest consumer of water in South Africa following the agricultural sector (Gerbens-Leenes et al., 2018). Bardhan (2011) examined the amount of water consumed in the production of construction materials, identifying bricks, cement, aluminium, and glass as the materials that require the most water in their manufacturing processes and concluding that the production of construction materials cannot take place without water. Choudhuri (2015) showed that the production of steel uses more water than the other commonly used building materials such as cement, bricks, aluminium, and clear float glass.

During the construction phase, the use of water varies depending on the project; however, water is typically required for the following activities: temporary site accommodation, general site activities; wet trades; drywall partitions; site dust suppression and cleaning; commissioning; and testing (Waylen et al., 2011). The wet trades include brickwork, mixing of mortar and concrete, curing work, fitting interiors such as bathrooms and kitchen, grout, masonry, painting and decorating, screed, tiling, plastering, soaking materials, and fire protection. Water is also used to establish vegetation on site, flush pipes and test pressure. In addition to the construction activities that use water, water is used for the personal hygiene of employees in toilets and washrooms.

3. Literature Review

Water scarcity as an area of research has received attention from sectors such as agriculture, forestry and energy (Rouault & Richard, 2003; Sheffield et al., 2014; Lesk et al., 2016). The literature suggests that water scarcity affects every aspect of life and every sector of the economy that relies on or uses water. Aigbavboa et al. (2017) and Wu et al. (2019) note that the construction industry is one of the major consumers of water; however, very few works have been published linking it with water scarcity. These few studies focus

on water-saving techniques within the construction industry (Campisano et al., 2017; Habtemariam et al., 2018; Wanjiru & Xia, 2018; Wu et al., 2019; Zhao et al., 2018). Moreover, there is an inadequate appreciation of the significance of drought in construction (Hawkins, 2013).

Water scarcity is an external risk factor in construction projects that must be handled properly (Khan & Gul, 2017). Several studies conclude that external factors will most likely cause delays in construction projects (Assaf & Al-Hejji, 2006; Muhwezi et al., 2014). When the construction industry is negatively affected due to water scarcity, then the real estate industry is also affected. Water scarcity may contribute to project delays and poor-quality buildings. It may also cost property investors more when there are delays, cost overruns, and consequent reductions in quality. Studies reveal that cost and time overruns are interrelated in construction projects (Kaliba et al., 2009; Olawale & Sun, 2010).

Cost, time, and quality are the most common variables against which the success or failure of a project is determined. A project is usually deemed successful when it is delivered at the required quality within the agreed budget and timeframe (Long et al., 2004; Larsen, et al., 2016). Failure to achieve these targets may be due to many factors associated with internal and/or external factors (Khan & Gul, 2017). Water scarcity or drought falls within the external factors or risks over which the client and contractor have little control.

Some of the problems that cause delays, cost overruns and quality problems may be inevitable in construction projects. Thus, pre-project planning is vital for project performance and success. It is possible to avoid some of the challenges associated with time, cost, and quality through increased pre-project planning to reduce risks (Yang et al., 2012; Larsen et al., 2016). Pre-project planning may reduce risk, increase quality and improve the chance of success because the contractor is prepared and able to play a proactive role during construction (Larsen et al., 2016). Khan and Gul (2017) suggest that those involved in construction projects should have a contingency plan to deal with some external risks such as water scarcity. In this manner, infrastructure development projects may proceed with minimal disruption, even with water scarcity or a sudden change in the water supply.

Water used in construction comes from multiple sources: stormwater, reusable water from wastewater treatment plants and potable water. Water usage in construction projects varies from country to country, as it is intertwined with local factors such as climate, available water resources and societal attitudes towards water usage (Heravi & Abdolvand, 2019). In South Africa, the social and cultural resistance to using alternative building materials to brick and mortar exacerbates the extensive use of water in construction (Gunnell et al., 2009). This is still the case, even now, as the country still prefers conventional construction methods and ordinary sources of water (Windapo et al., 2021). South Africa could consider other options, such as desalination, and foster the increased use of groundwater and

rainwater harvesting. Desalination has been used widely in the Middle East, North Africa (MENA) (Negewo, 2012; Li et al., 2018), Australia (Palmer, 2014; Li et al., 2018) and other countries with extreme freshwater scarcity coupled with rapid population growth. However, it is important to note that water quality may impact the strength of certain types of construction (Wegian, 2010; Meena & Luhar, 2019); therefore, the water treatment or purification process cannot be undermined. Concrete and mortar require water of a certain quality for strength. The water used in construction must be of good quality and cleaned of foreign substances such as oils, acid, salt, and organic materials. Potable water is recommended for concrete, in particular. Construction projects also require water of a specific standard, which might be difficult to obtain during water scarcity.

Addressing some of the challenges related to water scarcity in the pre-planning phase of a construction project will ensure that the project is appropriately planned so that problems are foreseen and mitigated (Heravi et al., 2015; Larsen et al., 2016; Khan & Gul, 2017). Key role players, including architects, geologists, engineers, project managers, construction managers, and quantity surveyors, can work together in the planning phase of construction for a successful project. They can modify project plans to accommodate the water shortage. During this phase, the stakeholders can make vital decisions related to construction materials that use less water without necessarily compromising quality and consider mitigating actions in case of water scarcity.

4. Methodology

This is an exploratory study seeking to understand the effects of water scarcity from the perspective of those involved in construction projects. It takes an interpretivist worldview wherein the respondents report their experience with construction projects. To better understand the experiences of the respondents, the study adopts a qualitative approach. Primary data were garnered from interviews with stakeholders in the construction industry to extract as much information as possible.

The respondents were from the Western Cape, Gauteng, Mpumalanga and Limpopo Provinces. These provinces were purposively selected because they are the most affected by drought and water scarcity. The Western Cape Province has suffered severe droughts, recently in 2015/2016 and 2017/2018, and was approaching Day Zero. Hence, respondents from the Western Cape were useful for the study as they have a long experience with drought, and faced many water restrictions to avoid Day Zero. Gauteng was the only province not declared a disaster province in the 2015/2016 drought and was one of the least affected regions in the 2017/2018 drought, but it was at high risk. Respondents from Gauteng were relevant in the study to supply different views and experiences from those of the respondents from the Western Cape. Both Gauteng and Cape Town city regions are key economic hubs in South Africa. Limpopo Province is also regarded as being drought-prone, although it suffered minimally in 2017/2018, which means that it likely developed

coping mechanisms after the 2016/2017 drought experience. Mpumalanga Province is another province that is prone to drought.

The population under study within the provinces includes construction project stakeholders and role-players within the construction industry, namely contractors, project managers, clients (developers), engineers, architects and quantity surveyors. Although the construction contract typically has only two parties (the employer and contractor), several role players are usually involved (appointed separately by either party or in some cases jointly by both parties) who contribute to the construction process.

The respondents are key role players in their companies and are familiar with the importance of water in any construction project. Moreover, these respondents were judged to be able to give meaningful feedback concerning the effects of water scarcity on construction projects. The respondents have extensive experience in construction projects and have been involved in several projects apart from their current ones. This implies that respondents were drawing from their current and past experiences with construction projects in the interviews. It was also established during the interviews that the respondents' location did not pose a limitation to understanding problems in other provinces because they have worked in various projects in different provinces. Table 1 indicates the professional background of the respondents in both the first and second stages of the data collection. The respondents approached the issue of water scarcity from different perspectives based on their professional experience.

Table 1: Location and Professional Background of the Respondents

| Professional Background | | | | | | |
|-------------------------|-------------------|------------|-----------------|-----------|-----------|-----------|
| Stage 1 | | | | | | |
| Province | Quantity Surveyor | Contractor | Project Manager | Engineer | Architect | Total |
| Gauteng | 5 | 1 | 1 | | | 7 |
| Western Cape | 1 | 1 | 1 | | | 3 |
| Limpopo | | 1 | | | | 1 |
| Stage 2 | | | | | | |
| Province | Quantity Surveyor | Contractor | Project Manager | Engineers | Architect | |
| Gauteng | 4 | 1 | 5 | 3 | 3 | 16 |
| Western Cape | | | | 1 | | 1 |
| Limpopo | | 1 | 3 | 2 | | 6 |
| Mpumalanga | | | 1 | 1 | | 2 |
| Total | 10 | 5 | 11 | 7 | 3 | 36 |

Most of the respondents are responsible for multiple aspects of construction, especially the contractors and project managers who are architects, engineers or quantity surveyors. The sample was distributed across different professional backgrounds, reflecting opinions from a range of stakeholders

within the construction industry, although dominated by respondents in Gauteng Province.

Purposive sampling was used to select an initial group of 11 participants. The same approach was subsequently used to select a second group of five participants and thereafter a snowball sampling technique was used to reach 20 additional relevant construction stakeholders. Semi-structured interview questions were used to collect primary data in August-September 2018 and November 2020.

Due to the unavailability of some respondents to participate in face-to-face interviews and the restrictions imposed by the COVID-19 pandemic, online and telephone interviews were also used to gather data. In the first wave, three interviews were conducted with respondents from the Western Cape. Of the three, two were conducted online and one over the telephone. There were seven respondents from Gauteng Province with three face-to-face interviews and four online interviews. There was one online interview with a respondent from Limpopo Province. The second wave of interviews consisted of 25 respondents. Telephone interviews were conducted with both clients and contractors. An architect, two contract managers (a civil engineer and quantity surveyor), and two project managers (a civil engineer and quantity surveyor) were interviewed. These five respondents gave leads to an additional 20 online interviewees. It is important to note that the respondents responded adequately to all the questions asked. There was an opportunity to probe and conduct follow up interviews regarding some questions to obtain clarity and further information. The five telephone interviews were comprehensive, and saturation was reached when no new information emerged from both the telephone and online interviews.

The interview questions were designed to obtain information on the importance of water and its usage; the effects of water scarcity on project timeframes, cost and quality; and the coping mechanisms employed. In the first stage of the interviews the respondents from the Western Cape were asked additional questions about their awareness of the drought before starting projects that were undertaken during the drought season. After the first stage of interviews it was clear that other provinces had also experienced drought or water shortages. As a result, the specific questions that were directed to respondents in the Western Cape were merged with other questions so that all the respondents were asked similar questions. However, this did not affect data credibility, as this study used semi-structured interview questions, enabling the interviewer to probe further. Even in the first stage of the interviews the questions were designed to enable the respondents to give relevant information for this study across provinces.

Thematic analysis was used to analyse data gathered from the interviews. This analytical technique helped identify patterns and themes from the collected data (Maguire & Delahunt, 2017). The themes identify the major issues relating to water scarcity in construction projects and are used to help understand the effects of water scarcity on construction projects. The analysis

was not based on the province nor professional background, but rather the emerging themes across the data gathered from the respondents. The process followed was first going through the responses to get a clear understanding of the data received. After this stage, we went back again to try to categorise the information and then extract major themes emerging from the data. Thereafter, some themes were merged after realising that some information belongs to one theme. Then, we undertook the write-up stage but continued going back and forth between write-up and further reviewing the data to ensure that important information was not omitted.

5. Analysis

5.1. Importance and usage of water in construction projects

All the respondents agreed that water is vital to the construction industry. They could not see any construction project running well without water on site. One of the respondents drew an analogy likening water in a construction project with oil in machinery. Although water is important in construction projects, the usage varies depending on the project. For instance, water needed in the construction of buildings is not the same as the water needed in road construction or water reticulation and reservoir construction. Water usage also varies depending on the stage and type of project. Some projects require less water during the initial stages but require more water in the final stages. The construction of buildings uses less water than road construction. However, those involved in water reticulation and reservoir projects said that these types of projects do not require much water during the early stages of construction but need much more towards the end. Water usage also varies, for instance, in the production of concrete, mixing mortar, plastering; site establishment; fire sprinklers; cleaning; stabilisation and compaction of road layers; dust suppression; testing; human consumption, toilet facilities, and for general hygiene on-site.

5.2. Responsibility for water provision

Another issue raised concerning the importance of water is the need to discuss who is responsible for water provision at the outset. This is the type of discussion that can take place between the clients and the contractors to avoid disputes. In this manner, the agreement is embedded in the contract. The respondents representing the client said that this information forms part of the tender briefing and the document prepared by the professional team. If there are changes during the construction process in terms of water sources or provision, the respondents said that a variation order is used for the client to pay for the additional cost of water. The respondents representing the contractors argued that this is not always the case because they end up incurring the costs rather than the client.

When water is scarce, both the contractor and the client are affected. Construction may come to a standstill. One respondent in Gauteng put it in a simple way, “*no water, no construction*”; however, all but three respondents

said some projects can be completed without water. Some respondents reported that if they run out of water, it must be imported to the site, which increased the cost, thus impacting the project schedule. Water shortages on-site and importing water to the site can result in extra claims for an extension. The client may have to inject more money into the project to accommodate the additional water costs. Sometimes the contractor incurs costs related to water shortages on-site as they take full responsibility to complete the project. In some situations, projects are delayed or postponed until there is water on site. The quality of work is compromised on some projects as the contractor tries to complete the project with less water.

The construction industry is well aware that South Africa is a drought-prone country; nonetheless, it remains difficult to measure the magnitude of the risk of drought when tendering or starting a construction project. Some more significant projects may be suspended because they need more water, and it can be expensive to transport water to the site. In some instances, the budget will be increased to allow for water tankers. Projects that require less water are easier to manage when water scarcity is prevalent and respondents said that it is easier to bring water to the site. The contractors said that depending on the amount of water needed, they weigh up all options and choose the most favourable one. Whichever option they choose, the likelihood of increasing costs and delays is high and can affect the quality of the deliverable. One respondent hinted that this may result in job losses, probably when the additional costs of water are paid by the contractors and were not initially factored into the budget.

5.3. Areas that are prone to water scarcity

Although the country is drought-prone, certain areas and cities are at greater risk than others. Construction companies do not shy away from tendering in high-risk areas. Instead, they “*incorporate the additional costs and programme implications*”, according to one of the respondents who completed more than 70 roads and water projects in Limpopo and Mpumalanga Provinces as a consultant, contract manager and engineer. However, one respondent said that there are projects that he decides not to tender for based on the assessment he makes relating to resources and the amount of water that might be needed. The respondents believe that Limpopo was, by far, at the top of the list of provinces that tend to be affected by water shortages. This was surprising because the media focused more on Western Cape as the province most affected by drought. Limpopo was followed by the Western Cape, Eastern Cape, Northern Cape, Free State, Gauteng, Mpumalanga and Kwazulu Natal.

5.4. Plan and undertake risk assessment

The planning stage is crucial in construction projects. Knowing which provinces are prone to drought helps the contractors when they tender for projects. Respondents shared several views on what they can do in the planning stage to better prepare for water shortages. Companies can estimate

the volume of water needed for the project in relation to the supply in the area; they can set aside funds to pay for water tankers at the outset, and they can provide boreholes and purification on site with adequate stored water reserves. Besides, a risk assessment that includes drought and water scarcity should be undertaken before the start of the project. One respondent said that:

“All plans should incorporate how projects are impacted in the event of shortages. Understanding the impacts is vital, and good risk management systems should be established and implemented. Mitigating mechanisms should be incorporated detailing how water would be sourced in the event of shortages.”

– Respondent architect who is also a project manager based in Gauteng

5.5. Coping mechanism for water shortages

There is a difference between planning and execution; therefore, project managers must play a proactive role throughout the life of the project to attend to issues as they arise. The respondents were asked about measures that may be implemented to deal with water shortages in the execution phase. If the project has not started, sometimes they delay the start date to avoid costs related to drought or water shortages. In many instances, construction projects are affected by drought while in progress. Most of the respondents suggested using water sustainably and tapping into other alternative water sources for their construction projects. The suggestions imply that construction companies should be willing to invest in their employees by providing training in what to do in case of water scarcity. At the same time, they should be prepared to provide what is necessary for the project to continue as planned.

Water shortages force professionals in the construction industry to think of alternative construction methods. For some respondents, this is a call for using resources wisely and embracing greening and sustainability concepts. It is also a call to think carefully about the selection of materials and water consumption levels even after construction. In the design stage, engineers and architects can design structures that require less water. Some respondents suggested the use of alternative construction methods to cope with water scarcity within the construction industry. It was clear from the respondents who are involved in road construction that it is easy to employ alternative construction methods for buildings but more difficult for road construction.

6. Discussion

Water scarcity is a global challenge that individuals, industries, and the public and private sectors must find ways to manage. This problem is further intensified by the increase in population and their growing water needs. People need water for their survival, and at the same time, more water is required for agriculture to lessen food insecurity and for infrastructure development. All the respondents in this study agreed that water is essential in construction in line with the findings in the literature (Larsen et al., 2016;

Wang et al., 2019; Wu et al., 2019; Mannan & Al-Ghamdi, 2020). The projections in South Africa are not promising in terms of water resources and the infrastructure of the nation. Therefore, the construction industry, which relies heavily on water, must find ways to continue operating with less water.

According to Windapo et al. (2021), the government, builders and occupiers in South Africa still prefer bricks and mortar. The engineers and architects interviewed for this study raised the issue of alternative methods. Thinking of designs and other alternatives for using less water calls for creativity at different levels by those involved in construction projects so that they can find ways to continue delivering the much-needed infrastructure. It was also noted in the data drawn from interviews that engineers thought of a long-term solution of drilling boreholes on-site while quantity surveyors were more focused on finding ways to recycle water on site. In addition, the strategies that quantity surveyors proposed were saving costs and avoiding delays. For the engineers, the strategies were focused on quality and avoiding delays in project timelines. The project managers were more worried about the delay. However, most of the project managers are also engineers, quantity surveyors or architects. Previous literature also concluded that external factors such as water scarcity can cause cost overruns, compromised quality and delays in construction projects (Kaliba et al., 2009; Olawale & Sun, 2010; Muhwezi et al., 2014).

To avoid some of the challenges, construction industry participants must plan, organise, manage, and execute project activities from start to finish. In this process, they can identify certain challenges concerning the use of water in the project. Yang et al. (2012), Heravi et al. (2015) and Larsen et al. (2016) noted that some issues relating to water shortages could be highlighted in the pre-planning and planning stage. It is up to the construction key role players to advise their clients about the risks involved with water shortages on site. In the planning stage, both parties can devise a plan regarding the sourcing of water and the quantity needed as well as the frequency and cost of delivery. It was clear from the interviews that water shortages at construction sites exert adverse effects on construction projects, resulting in scrutiny of the project's success. In addition, water scarcity may affect the overall cost of a project. This is similar to the findings by Waidyasekara et al. (2013). This finding is also in line with the argument put forward that any delays in construction projects will likely have cost implications for both the contractor and the client (Kaliba et al., 2009; Olawale & Sun, 2010). Some of the problems relating to water scarcity can be resolved before the project starts if there is proper pre-project planning, as discussed in Larsen et al. (2016). Client representatives can manage the expectations of clients when it comes to cost, time, and quality. Because of the influence of climate change in South Africa, construction contracts should include a risk plan dealing with water shortages and a contingency amount for any additional cost that could arise owing to a water shortage.

South Africa has experienced extreme weather events in recent years, specifically drought, heavy rain leading to flash flooding, severe

thunderstorms (including hail), bush fires, and strong winds. Projections indicate that the country may continue to experience more extreme weather patterns. Although there are studies focused on these drought-prone areas or cities (Rouault & Richard, 2003; Sheffield et al., 2014; Lesk et al., 2016), the construction industry should undertake further research to understand the implications for the industry. The onus falls on the industry to initiate these discussions and implement risk mitigation strategies to reduce threats to project objectives. Moreover, contractors should be encouraged to start using other methods, for example, groundwater for construction activities and other innovative techniques, to conserve water resources and reduce their dependence on potable water. Moreover, the use of alternative construction materials should be encouraged. This includes the use of dry technology, precast concrete structures, and specific innovative materials. The construction industry should also draw from the experiences of other countries and strategies to manage water scarcity.

It was evident from the interviews that water shortages in construction projects affect both the contractor and the client. Considering the necessity and usage of water in the production of construction materials during and after the construction phase, it is essential for those involved in the different stages to have clear projections for their water needs and plan accordingly. Property developers need to possess a better understanding of the water situation in the areas in which they are operating. It is crucial to undertake an environmental impact assessment or risk assessment to identify some of these water-related issues beforehand and plan accordingly. The design of buildings and other infrastructure in water-scarce areas should be water efficient. In addition, those involved in the early stages of design and construction should think beyond the construction project. One respondent noted that in drought-prone areas, the client is better off procuring water storage for both construction and post-construction. Having water on-site would be important for managers and occupiers of facilities after completing the project; hence the challenges of water scarcity extends beyond the construction industry. This indicates that whatever is done in the design and construction stages has implications for the subsequent use, management and maintenance of buildings.

7. Conclusion

This was an exploratory study of the effect of water scarcity on construction projects. It is an essential study for real estate because of the interdependency and interrelationship of real estate with the construction industry. Although the respondents were located in only four provinces (Western Cape, Gauteng, Limpopo and Mpumalanga), their experience with different types of construction projects in multiple provinces provided them with a holistic view of the effects of water scarcity across most provinces in South Africa.

The study shows that industry participants recognise that water is essential in construction projects and that water scarcity may lead to project delays, cost overruns and compromised quality. The interview data illustrated that the

volume of water needed varies depending on the nature of the construction projects. Water scarcity affects construction projects to varying degrees, depending on the volume and usage and the ability to source water efficiently. Construction projects requiring high volumes of water need not only rely on water that can be provided through government infrastructure but should also source water through various other means such as drilling boreholes, recycling, and by applying water saving techniques. Furthermore, the results suggest that responsibility for water provision should be embedded in the project agreement to avoid disputes. We also caution developers and contractors to ensure that feasibility studies and risk assessment are completed before commencing a project.

The following areas require further research: first, more research is required to expand knowledge about the role of water and its scarcity in real estate development and operations. Second, considering the varying degrees of water usage in construction projects, it may be useful to undertake research on water scarcity effects focusing on specific construction projects, and to explore alternative construction technologies that use less water. Third, there is need for in-depth analysis of the volume of water used at various stages of construction projects; however, such research would require proper classification of construction projects in order to develop comparable analysis.

Water scarcity is a phenomenon that is to some extent due to factors that are beyond human control; however, this does not absolve us from taking the necessary measures to avert Day Zero in many parts of the country. Developing proper infrastructure to capture, conserve, and distribute water resources is key, as well as laying the foundations for the responsible usage of scarce water across South Africa. Therefore, those in the construction industry have a duty to explore mechanisms that use less water without compromising the quality of the work. Measures may be taken to avoid Day Zero; however, we also rely on the help of Mother Nature to be generous in supplying water. In some parts of the country, such as Nelson Mandela Bay, there are areas that have already passed Day Zero, and this will have negative effects on the construction industry, which relies on water.

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Property Taxation Imperatives for Africa: A Study of Four Cities

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Abstract

African countries are currently pressured by high urbanisation rates that threaten their ability to address the basic infrastructure and social needs of citizens. Globally, property taxes are utilised as a tool to generate revenue that supports infrastructure provision, but its use has not been effective in Africa. This study examines the trends in property tax administration in cities of four different countries in Africa. It presents an analysis of the lessons that can be learnt and improvements to be made. Using Lagos, Addis Ababa, Dar es Salaam and Kigali as case studies, the study finds that although they have carried out recent property tax reforms which have led to remarkable outcomes in terms of coverage and revenues, opportunities to take advantage of the growing real estate development markets arising from rapid urbanisation have been missed. Lack of intra-governmental co-operation is also a threat to sustaining performance in some cases. The role of local governments has been very contentious with policy changes and controversies. The need for stakeholder involvement and redistributing revenues to local services remains unexplored in all four cases. However, the use of technology in identifying the tax base, updating cadastre, and collection, represents key opportunities to increase effectiveness. Recommendations include strengthening intra-governmental co-operation, using technology to capture new real estate development and supporting local government capacities as strategies to improve property tax policy and administration.

Keywords: Property Taxation; Property Tax Reform; Property Tax Policy Guide; Property Tax in Africa

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1. Introduction

The United Nations (2014) estimates that between 2015 and 2050, the population in African cities will grow by 790 million people and that by 2030, 12 cities will contain between 5 to 10 million inhabitants compared to just three (Cairo, Kinshasa and Lagos) in 2014. UN-Habitat (2020) notes that because Africa has much lower income levels than other regions with similar levels of urbanisation, it is not reaping all the potential economic development benefits of urbanisation. One manifestation of this is the relatively high percentage of African urban dwellers living in slum conditions. UN-Habitat (2014) projects that more than 50% of Africa's population is likely to live in slums by 2025. In addition, significant infrastructure deficits affect productivity and quality of life. The African Development Bank (2018) estimates that the continent's infrastructure needs amount to between US\$130-170 billion per year, with a financing gap estimated at \$68-108 billion.

To cope with these challenges, African governments must have access to credible sources of financing to provide capital for basic services, restoration and management of ubiquitous slum communities and provision and maintenance of inclusive and high-impact technology-driven infrastructure. This implies that governments need to be innovative in seeking equitable revenues from both local and foreign sources. Researchers such as Babawale and Nubi (2011), Franzsen and McCluskey (2017a) and Goodfellow (2015) agree that property taxation is a key revenue driver that could support aspirations for economic development at both national and city levels. According to Fjestald et al. (2019), property tax is a tax on ownership, occupation or legal transfer of buildings and land that is commonly charged as annual payments by owners of residential and commercial buildings. It is also an important source of local government and municipal revenue in developed countries, contributing an average of 2.2% to the GDP of industrial countries (Franzsen & McCluskey, 2017a). However, its contribution to GDP is quite low at an average of about 0.6% in developing countries and 0.38% for Africa (Franzsen & McCluskey, 2017a). This can be linked to weak tax collection systems that characterise African cities (Oluwadare & Ojo, 2014; McCluskey & Franzsen, 2016; Fjeldstad et al., 2017). Thus, tax collection has been a focus of property tax reforms in many African countries (Bird & Slack, 2004; Babawale & Nubi, 2011).

Ahmad et al. (2014) note that rapid urbanisation presents an opportunity for tapping into the taxation of built-up land, which has historically been the backbone of local taxation in advanced countries. Property tax would be one means of tapping into the economic opportunities in the emerging African real estate sector provided governments have an effective system for identifying, collecting and accounting for property tax in place. In general, property tax also has an important role to play in tackling urbanisation challenges and unlocking its opportunities by enabling governments to expand their revenue base and, thereby, generate funds that can be used to provide much needed municipal infrastructure. It is also regarded as a

preferred strategy to strengthen broad based direct taxation in urban Africa (Fjeldstad et al., 2017).

However, property tax is a highly complex system (McCluskey & Franzsen, 2016). It requires identification of taxable properties, collection of property characteristics, storage of this information and periodic reassessment to capture value changes. African countries work within the constraints of decades of infrastructure decay, a largely informal settlement base (which is usually not captured in their tax base), vulnerable political systems and, sometimes, amoral leadership. Thus, while their current (and potential) performance in property tax administration and revenue generation varies, performance is assessed to be generally low (Franzsen & McCluskey, 2017a).

Franzsen and McCluskey (2017a) assert that research about property tax is not as widespread in Africa as with other regions of the world. The current study extracts from previous research to analyse the current status of property tax in four cities in sub-Saharan Africa. A key contribution it makes to the extant literature is its use of the UN-Habitat (2011) Land and Property Tax Policy Guide (hereafter referred to as UN-Habitat PT Guide) as an analytical framework to provide an impetus for policy change. The purpose of this article is to assess the current state of property tax in four African cities in different countries, analyse recent improvements, identify changes yet to be made and determine the lessons that can be learnt.

The choice of Addis Ababa (Ethiopia), Dar es Salaam (Tanzania), Kigali (Rwanda) and Lagos (Nigeria) is predicated on their being listed in the World Bank's 2017 *Doing Business Report* as having relatively stronger property tax performance compared to other cities in their home countries. In addition, these cities have also benefitted from successful implementation of property tax reforms in national or city property tax systems relative to other cities in Africa (Fjeldstad et al., 2017). However, this does not imply that success has been totally achieved throughout their property tax systems. As Franzsen and Youngman (2009) and McCluskey and Franzsen (2016) note, success stories about property tax in Africa can be found in components rather than complete systems, with property tax information being extremely difficult to obtain in many African countries. Recommendations emerge from this study for the policy sector of the selected cities, other African cities and cities in other developing countries whilst also informing advocacy and further studies in this area.

2. Literature Review

The poor performance of African tax systems has attracted academic and policy interest in efforts to untangle the causes and remedies. Fjeldstad et al. (2017) show a link between Africa's urbanisation and property taxation, identifying political and administrative constraints facing the development of effective property tax systems. Bird and Slack (2004) provided a study of 25 countries and Franzsen and McCluskey (2017a) analysed the status, challenges and prospects of property taxation in 28 African countries.

Goodfellow (2017) focussed on the political economy of property taxation in Rwanda and Ethiopia. Researchers like Babawale and Nubi (2011), Balogun (2019), Chemouni (2020), Massawe (2020), Namangaya (2018) and Odimegwu et al. (2018), have carried out studies in specific countries to show the potential of effective property tax administration to fund basic facilities and services.

Over the last decade, many African countries have carried out property tax reforms. These reforms are usually part of an overall local government structure and finance strategy (e.g. Cabo Verde and Tanzania), or part of substantive tax system and land reforms (e.g. Rwanda). Some countries have also carried out reforms independent of other government initiatives (Babawale & Nubi, 2011). In Lagos, Nigeria, for example, property tax reforms were based on aggressive revenue drives for political survival without reforms in either the land or governance systems (Fjeldstad et al., 2019). On the other hand, Cabo Verde's reforms resulted from a decentralisation drive (Franzsen et al., 2017). In Egypt, meanwhile, constant changes in property tax laws have been carried out in response to socioeconomic and political conditions (Amin et al., 2017). In spite of property taxes being a strong and attractive revenue mobiliser for Africa (Fjeldstad et al., 2017) and reforms being carried out, performance has been low.

In general, the goals of reform include simplification of the tax system, removing inequities and strengthening revenue collection and mobilisation capacity. While the quest for 'good governance' is found in most policy reform statements (Babawale & Nubi, 2011), it is not always achieved (Goodfellow, 2017). Researchers have searched for the reasons for this by examining the effectiveness of the governance structure underpinning property tax and the effectiveness of the property tax process itself. For instance, Babawale and Nubi (2011) and Plimmer and McCluskey (2010) stress the need for integration of the property taxation and the political economy context of the country. Babawale and Nubi (2011) also stress the need for building on existing political supports and matching property tax reforms with other economic and inter-government fiscal reforms. However, political inference often limits the process, as pointed out by Fjeldstad et al. (2019) and Goodfellow (2017), whereas what is required for success is that the policy environment must be supportive and unambiguous rather than coercive and exploitative. In addition, Fjeldstad et al. (2019) in their analyses of inter-organisational cooperation in revenue collection assert that property tax performance is enhanced if all government agencies involved in property tax policy and administration are more collaborative.

In their comparative study of property tax in four Nigerian states, Odimegwu et al. (2018) caution against the adoption of complex tax policy to underpin property taxation. This echoes the UN-Habitat PT Guide, which emphasises simplicity of property tax systems. Bird and Slack (2004) show from case studies of 25 countries that prerequisites for successful property tax reforms include the existence of a strong tax administration, including a process for

property identification, assessment, collection and enforcement. This is also the position of Fjeldstad et al. (2017) and Odimegwu et al. (2018) who further show that the tax policy and tax administration should be synchronised, especially if property tax reform is being carried out for the purpose of increasing revenue. In addition, Babawale and Nubi (2011) observe that two critical factors that limit the effectiveness of property tax in developing countries are defective property tax policy and maladministration, with the latter being more critical. They observe that the poor link between tax payment and provision of communal services is one manifestation of such maladministration.

The extant literature is, therefore, clear that both the tax policy environment and the tax administration processes must be effective for meaningful revenue generation in a property tax system. To address the research questions of this study, it is necessary to collate both components into a composite whole that can then be the basis for analysing the property tax systems of the four case studies. The UN-Habitat PT Guide provides a resource to do this.

The UN-Habitat PT Guide identifies two policy imperatives (tax base and rate) and three administrative imperatives (coverage, valuation and collection) as the structures that need to be in place for property tax effectiveness. These imperatives are called ‘tax revenue identity elements’ in the document and are discussed in the next section. However, the guide does have its limitations to the extent that it is quite generalised because it provides global policy advice. Its recommendations therefore do not always reflect the peculiarities of the politics imbedded in property tax across diverse cities. It is also not based on critical evaluation of performance, rather offering step by step guidelines for initiating and deepening property tax systems. However, it does provide guidance to policy, practice and academia on how property tax systems should be developed, the constraints that are likely to emerge, and alternative strategies for addressing these constraints. To the extent that the present study seeks to provide both policy and technical guidance, it is adopted as an analytical framework for this study.

2.1. The UN-Habitat Policy Guidance for Effective Land and Property Tax

The UN-Habitat PT Guide explains the process of initiating, developing, implementing and sustaining an effective land and property tax system. Its ‘*land and property tax revenue identity perspective*’ raises questions related to tax policy and tax administration, and proffers recommendations for addressing these questions. We adapt the questions raised as key considerations for entrenching property tax effectiveness in African cities. Thus, the effectiveness of property tax systems in Addis Ababa, Dar es Salaam, Kigali and Lagos are viewed through the lens of the tax revenue identity perspective. The perspective is made up of five core elements divided into two policy elements (tax base and tax rate setting) and three administrative elements (fiscal cadastre, valuation and collection). In this section, we discuss these elements, drawing from the literature, practice in

different countries and the UN-Habitat PT Guide to establish the critical issues to be addressed if property tax effectiveness is to be achieved.

2.1.1 The Tax Base

Tax base refers to the reference property on which the tax is levied. As shown in Table 1, the first issue to address is what is to be taxed (land, immovable improvements or both). The practice varies across countries with some taxing land separately from improvements and others taxing only the improvement (Collier et al., 2017). The UN-Habitat PT Guide recommends that the tax should be levied on land alone where administrative and economic capacity to provide the depth of information required on properties is weak (UN-Habitat, 2011).

In considering how tax on the property is to be calculated, Plimmer and McCluskey (2010) identify two assessment types: market (or *ad valorem*) assessment and non-market assessment. In market assessment, the tax is linked to the capital and rental values of the properties. The UN-Habitat PT Guide asserts that market value approaches are appropriate for countries that have a vibrant real estate market because market-based valuation requires complex and costly processes of ascertaining value that adds complexity to the valuation process. Moreover, as observed by Plimmer and McCluskey (2010), market-based assessments ignore the fact that taxpayers may be asset-rich but income-poor which can undermine the equity of the system. On the other hand, non-market assessments rely on formulas based on property attributes such as size and location for assessing the property tax payable. Experts advocate for its use where the depth of the property market is thin (Plimmer & McCluskey, 2010, Franzsen & McCluskey, 2017a). In practice, Fjeldstad et al. (2017) observe that some countries adopt an area-based approach as a temporary measure.

The tax policy must clearly state whether the tax is to be paid by the owner of the property, the renters or occupiers. The UN-Habitat PT Guide recommends that owners of properties should be taxed if property ownership is well accepted and property rights registration well established in the city. Other occupants/users should be taxed in areas where individual ownership of land is not widely accepted, or where incomplete formal property registration and limited depth of land and property markets are evident (UN-Habitat, 2011).

2.1.2 The Tax Rate

According to UN-Habitat PT Guide, the principal policy considerations around tax rates are to ascertain first, if the rates are to be set by the local governments (and their agencies) or by higher tiers of government (such as state, regional or federal). According to the UN-Habitat PT Guide, where wider reforms for local government autonomy and accountability are in place, the rate setting should be done locally, but where there is a need to promote tax uniformity and harmonisation throughout the country, then a centralised

rate setting is appropriate. However, a mixed strategy can be adopted where a central authority is able to establish a range of acceptable rates and the local government is able to select the final rate (UN-Habitat, 2011).

Another consideration in setting an appropriate tax rate is whether all property should be taxed at the same rate, irrespective of the socio-economic status of taxpayers or property use. Collier et al. (2017) note that in many developing countries, different rates are applied to the land and building components and different rates are applied based on property type (residential, commercial or industrial purposes). Variable rates are used for specific purposes such as reducing speculation and supporting housing and real estate development (so only buildings may be charged). However, the UN-Habitat PT Guide recommended a single tax rate for all property types due to its ease of administration, suggesting that the number of rates be kept to a minimum if multiple rates are applied.

2.1.3 The Cadastre

A key question is which governmental entity will be responsible for updating the fiscal cadastre. The UN-Habitat PT Guide recommends that local governments should be in charge of updating the cadastre to support decentralisation of governance and autonomy, although it is acknowledged that they may need support from a higher level of government. It is important to note that in reality local governments do not always have complete authority to manage entire property tax systems due to technical, financial and human capacity. Importantly, in recent years, several African countries have launched land information systems to improve the quality of the cadastre and other components of the land administration and management system (Franzsen & McCluskey, 2017a; McCluskey & Huang, 2019) often with the support of external organisations. For instance, Uganda was able to launch land information systems with funding from the World Bank (Franzsen & McCluskey, 2017a). In Ghana, Accra implemented a land information system pilot project from 2000 to 2009 with support from Swedesurvey AB and Geo-Tech Systems (Jibao, 2017) while The Gambia started its own conversion from paper-based to digital mapping and training in GIS in 2015 (McCluskey & Jibao, 2017).

2.1.4 Valuation

The UN-Habitat PT Guide requires attention to two details: how often will values be updated and who should update values. It recommends updating every one to three years, with indexing between cycles. If local capacity permits, it recommends local authorities update, except for complex properties. It recognises that in practice, however, updating is often carried out by a national or regional agency. There are several challenges associated with the valuation element of property taxation. Detailed information about market-based transfers of properties must be available. In addition, suitable and adequate resources to assess, monitor and update the tax base are required to demonstrate accuracy in assessment. UN-Habitat notes that the method of

updating should be linked to the legal articulation of the value standard and the administrative capacity of the tax authority. Otherwise, changes in property values would not be captured and tax equity among comparable properties would be lost. While government agencies are known to directly undertake this function (McCluskey & Franzsen, 2016), UN-Habitat (2011) show that a number of cities outsource the valuation function to private sector partners in whole or in part. However, McCluskey and Franzsen (2016) go on to note that efficiencies have been obscured due to professional charges and lack of quality control. There are also political dynamics that influence the application of true market values to properties.

2.1.5 Collection

Tax collection involves sending out tax bills, collecting the taxes and ensuring payment, which are usually local government functions (Bird & Slack, 2004). Responsibility for collection is intricately woven around the administrative and political structures that underpin property taxation in each city. Thus, it variously falls on local governments, states and federal government agencies. In some cases, the task is outsourced to private sector entities. Effective collection systems operate where there are sufficient resources and expertise to administer property tax and where enforcement is strong. Property tax collection rates in Africa are usually less than 50% of annual billed amount compared to defaults of only 3-4% in Japan and the UK, implying defaults of 50% in Africa, a significant revenue loss (Bird & Slack, 2004).

The UN-Habitat PT Guide recommends that property collection effectiveness be hinged on incentives that motivate taxpayers to pay, easy and accessible collection processes and fair appeal options that are accessible to taxpayers. Finally, the collection system should also have avenues for discouraging delays and evasion through fair and clearly spelt out penalties such as property seizure (where culturally appropriate), auction and public disclosure. In subsequent sections, we examine the current property tax practice in the four case study cities in the context of these UN-Habitat PT Guide recommendations for effectiveness.

3. Methodology

This is a qualitative study based on a case study method. The descriptive case studies lead to the development of a narrative of the phenomena with reference to extant literature (Turnbull et al., 2021). A similar study design has been used in examining property tax in Franzsen and McCluskey (2017a), Goodfellow (2017) and Odimegwu et al. (2018). We choose four cases (Addis Ababa, Dar es Salaam, Kigali and Lagos). Each case is the most important city in its country (all are capital cities, apart from Lagos, which is the most commercialised and industrialised city in Nigeria). Each city has a different property tax system, allowing a study of several dimensions of property taxation from which we draw an understanding of the challenges, gaps and prospects for property tax in Africa. The selection of cases is therefore in line with the description of a case by Gerring (2007). The use of multiple cases in

this study helps in the identification of commonalities (and differences), which strengthens the understanding of the property taxation system in Africa and provides a strong impetus for other researchers to develop emerging theories from findings. The material used for analysing each case is obtained from published sources, both research and policy papers.

4. Case Studies

The review of each city in this section is presented according to the five elements identified in the UN-Habitat PT Guide as shown in Table 1. Each city case is preceded by a narrative that shows the context within which the property tax sector operates, followed by the analysis of its practises in defining the property tax base, setting the rate, maintaining the fiscal cadastre, updating the values and collecting. We subsequently analyse peculiarities, similarities and differences in tax administration that could offer insights into the effectiveness of each study city.

Table 1: Adaptation of the Tax Revenue Identity Perspective of UN-Habitat to the Case Study Cities

| Property Tax Element | UN-Habitat PT Guide's Core Questions | Current Practice in Case Study Cities | | | |
|------------------------|---|--|------------------------------|---|--|
| | | Addis Ababa | Dar e Salaam | Kigali | Lagos |
| Policy Elements | | | | | |
| Defining the Base | Will the base include land only, immovable improvements only or both? | Buildings Only | Buildings Only | Buildings and Land Separately | Buildings with Land Inclusive |
| | Will the value of the tax base be linked to capital, market value or property attributes? | Annual Rental Value | Market Value | Buildings: Market Value of Building; Land: Surface Value of a Plot of Land | Capital Value |
| | Will land owners or occupants be responsible for paying the tax? | Property Owner | Property Owner | Property Owner | Property Owner |
| Setting the Tax Rate | Will tax rates be set locally or centrally? | Federal Government | Federal Government | Federal Government | Federal Government |
| | Will there be a single tax rate or multiple rates for different types of property? | Single tax based on range of 1% to 4.5%. | Flat rates specified by law. | Multiple rates according to building use: 1% for residential buildings; 0.5% for commercial buildings; and 0.1% for industrial and other buildings. | Multiple rates according to building use and ownership type: 0.0394% for owner-occupied residential property, residential property without owner in residence, commercial property used by the occupier for business purposes and open empty land; 0.132% for industrial premises of manufacturing concerns; 0.132% for residential property/private school (owner and third party). |

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| Administrative Elements | | | | | |
|--------------------------------|--|---|---|---|--|
| Managing the Fiscal Cadastre | Which governmental entity will be responsible to update fiscal cadastre? | Local Government | Local Government | Federal Government | State Government |
| Updating Taxable Values | Who bears responsibility for value updates and how often will values be updated? | Local Government or Sub-city Government | Local Government | Federal Government | State Government |
| Collection | What incentives do taxpayers have to pay the tax? | Hand delivery | Partly outsourced services; Digitalised payment and tracking systems; No strict enforcement of penalties. | E-payments systems; Celebration of taxpayers day. | Instalment payment; Multiple payment channels; Discounts for early payments. |
| | What sanctions will be used for non-payment? | Reports of tax evasion | Restrain goods; Forfeiture of property; Imprisonment. | Strictly enforced penalties for default. | Penalties for late payment. |

4.1. Addis Ababa, Ethiopia

4.1.1. Context

Ethiopia operates with a system of ethnic federalism whereby the country is divided into nine federal states and two separately administered cities, Addis Ababa and Dire Dawa (Goodfellow, 2017). Unlike other cities in the regional state, Addis Ababa collects its own taxes. Land is nationalised in Ethiopia, so both urban and rural land are under public ownership. This underpins the property tax system, influencing the choice of tax base and tax rate.

In the past, Ethiopia operated a single revenue instrument based on the combined value of land and buildings, but this no longer exists (Goodfellow, 2015). When land was nationalised in 1974, a new law split property tax into two components: a roof tax and a land rent. The roof tax is acknowledged as closer to being a property tax (Goodfellow, 2015) and is the focus of this section.

4.1.2 Tax Base

Addis Ababa, like all Ethiopian cities, has a municipal tax known as a ‘roof tax’ or ‘city house tax’. According to the Urban Land Rent and Urban Houses Tax Proclamation No 80/1976, the tax is levied as a percentage of the annual rental value of the house (Franzsen & McCluskey, 2017b).

4.1.3 Tax Rate

The roof tax is based on assessment of annual rental value, with rates ranging from 1% to 4.5% (Franzsen & McCluskey, 2017b; Goodfellow, 2017). The rates are progressive, increasing as the property value increases. In accordance with the property law of Ethiopia, property owners are liable for the tax, not renters (Soressa & Gebreslus, 2009). Rates are set centrally in accordance with the national property tax proclamation but usually after discussions with the local governments (Franzsen & McCluskey, 2017b).

4.1.4 Coverage

When the Ethiopian People’s Revolutionary Democratic Front (EPRDF) took power in 1991, it took actions to address the incomplete property valuation rolls used for property taxation (Goodfellow, 2015). In 1996, a census of all properties was carried out. Since then, there have been no updates of the property roll in the city. The current cadastre therefore excludes new high-rise commercial developments and more than 100,000 condominium apartments built by the State in recent years (Goodfellow, 2017). Almost half (45%) of all structures are not on the roll in Addis Ababa (Franzsen & McCluskey, 2017b).

While the UN-Habitat PT Guide suggests that administrative capacity may be a cause for not achieving significant coverage, political factors can be more

important, as Goodfellow (2017) argues is the case for Addis Ababa. He contends that fear of political repercussions from a powerful middle class combined with powerful, wealthy, property owning diaspora-returnees have influenced low coverage and enforcement of property tax payment.

4.1.5 Valuation

The 1996 census of properties in Addis Ababa was carried out using computerised systems and identification and valuation of both formal and informal structures. This led to a new tax bill that dictated a fourfold increase in taxable rates, much to public outcry. In response, the government slashed the rates by one quarter. Since then, there has been no revaluation of properties or audit of new ones despite a rise in real estate development in the city. This has resulted in a significant loss of revenue because property values have not been updated for 25 years, contrary to the 1-3-year benchmark recommended in the UN-Habitat PT Guide. In addition, Goodfellow (2017) reports that a 2006 study comparing bank valuations with property values on government rolls showed a disparity of more than 300%. These remarkable differences are an indication of the revenues that have been lost due to lack of updated rolls.

Goodfellow (2017) argues that the unwillingness to raise roof taxes in the capital city is historically rooted in political rather than administrative factors, citing the example of other regional governments in Ethiopia that have used their devolved powers to substantially increase roof tax rates over the years.

4.1.6 Collection

City and sub-city governments are responsible for tax collection (Goodfellow, 2017). The city administration is legally allowed to send tax billing notifications to the taxpayers through registered mail or in person, although hand delivery is the norm due to lack of proper street signage (Soressa & Gebreslus, 2009). Further, payment of property taxes on new properties is voluntary because they are not officially captured by the city government. It is not surprising that as of 2014, the roof tax contributed just 0.1% of total city revenue (Goodfellow, 2017). This supports Soressa and Gebreslus' (2009) observation that the lack of drive for enforcement has resulted in failure of the urban local governments to identify tax defaulters and serve notices.

4.2. Dar es Salaam, Tanzania

4.2.1. Context

The administration of property tax in Tanzania has changed several times since 2008, before which local governments had often outsourced their property tax collection responsibilities with varying level of success. In 2008, the collection of property tax was centralised. A national agency, the Tanzania Revenue Authority (TRA), was assigned the task of collecting

property taxes on behalf of municipalities in Dar es Salaam with the objective of improving revenue collection. Due to political exigencies, by February 2014, the federal government returned the responsibilities back to the local governments, only to centralise the process again in July 2016 in a bid to ensure probity and sustain the high performance experienced when TRA was in charge. This became necessary due to the lack of efficiency in tax base coverage and revenue collection levels of the three local government authorities in Dar es Salaam (Kayuza, 2014). However, a lack of cooperation between the municipalities and the TRA reduced the latter's performance because local government officials were reluctant to carry out value updates as they no longer had responsibilities for collecting tax. Thus, the performance of TRA, which had achieved remarkable progress in terms of increased collection rates due to innovative payment options, was not sustained.

4.2.2. Tax Base

In Dar es Salaam, property tax is levied based on value of buildings and improvements within the taxing jurisdictions, and so excludes undeveloped land. The legal duty to pay property tax is imposed on the property owner (Massawe, 2020). The TRA has been successful in using a digitalised system to identify properties and has some expertise in valuing buildings, which fits with the UN-Habitat's recommendation.

4.2.3. Tax Rate

Flat rates are chargeable according to law. A study by Namangaya (2018) revealed that in the most recent phase of centralisation, the TRA ignored the valuation rolls supplied by the local governments due to their being incomplete, and instead charges a minimal flat rate. Slightly different rates are levied for multi-storey versus 'ordinary' (single-storey) buildings. The limitation of the flat rate is that it misses revenue from increased property values and can also enhance unfair practices by the property owner.

4.2.4. Coverage

The local government is responsible for registration of buildings. Between 1993 and 1999, Dar es Salaam enjoyed critical interventions in the development of a GIS platform to aid tax collection under the Urban Sector Engineering Project (USEP) of the World Bank and the Norwegian Development Agency. The objective of the project was to adopt the use of aerial photography to capture buildings and develop spatial building databases linked to valuation rolls. Although it greatly enhanced the coverage of the tax base, there are some concerns, including gaps in technical data, many houses being left out, inaccurate valuation data, inaccurate locations and lack of updating the database (Namangaya, 2018). Moreover, the data system of the internal revenue sections and that of property-based departments were not linked. This is a critical link that Namangaya (2018) and the UN-Habitat PT Guide recognise as key for effectively identifying new properties and their owners and determining tax liability.

4.2.5. Valuation

The valuation department in the local government is responsible for the preparation of the valuation roll and issuance of the tax demand notices (Massawe, 2020). Thus, TRA depends on information from local government offices to develop property registers. The local governments are, however, not motivated to provide these services because of their grievance at being dispossessed of their tax collection responsibilities by the TRA (Fjeldstad et al., 2009; Fjeldstad et al., 2019). This has reduced the effectiveness of the system in areas such as such as linking compliance with improved local services and developing comprehensive and detailed property registers.

4.2.6. Collection

During the period of the first centralisation in 2008, the TRA was able to marshal resources to implement reforms in collection processes, including the introduction of digitisation and non-cash payment regimes and outsourcing the valuation function (in whole or part) to private sector partners. This increased the tax revenue substantially, more than tripling the number of eligible taxpayers from 31,160 to 104,629. TRA expanded satellite imaging of taxpayers' property, introduced electronic payment and tracking systems and increased the profile of properties to expand access. Interference by local political elites who lobbied to pay less or no tax was thwarted by the introduction of a centralised system based on electronic payment systems that are non-discriminatory (Fjeldstad et al., 2019). Compliance is enhanced by empowering the collection agency to restrain goods, seize rents and profits, fine and charge interest exceeding the commercial rate on late payments, seize property and even imprison the evader (Massawe, 2020). However, the ability of these provisions to serve as deterrents to default in payment and tax evasion are only as good as the strength of enforcement, which is judged to be low (Namangaya, 2018).

4.3 Kigali, Rwanda

4.3.1 Context

In Rwanda, the state has supreme power over all the land. Land owners receive a renewable emphyteutic lease contract. A decentralisation policy was introduced by the Rwandan Patriotic Front (RPF) in 2000 that devolved the administration of property tax to local governments with the expectation that it would be their major source of locally generated revenue. Between 2006 and 2013, Rwanda's compound annual growth rate of construction was relatively high at 19.7% because the government incentivised investment in construction and real estate. Franzsen and Youngman (2009) reported that as of 2009, experts predicted that property taxation could generate revenues equivalent to 5% of Rwanda's GDP. Yet in 2013, the property tax collected nationally (the vast majority from Kigali) was just 0.018% of GDP. The central government's Rwandan Revenue Authority (RRA) took over property tax collection from the districts in 2014 to improve efficiency. Further

reforms were made with the 2018 Immovable Property Tax Law, which increased and harmonised tax rates for property (land and buildings) and made tax on rental income more progressive. Chemouni (2020) reports that the personal intervention of the Rwandan president was a major factor in the introduction of the new tax overcoming stiff resistance to reforms by elitist, property owning politicians. Despite this, Chemouni cautions that an inherent reluctance to tax property has been identified as one of the weakness of the RRA, despite its being one of the best performing organisations in the country. Goodfellow (2017) explains that this reluctance is due to the influence of the political elite, citing how they truncated tax reforms attempts in 2011.

4.3.2 Tax Base

Kigali levies a tax on buildings and another on land. Taxes are linked to the market value of a building and improvements and land lot area. The 2018 Immovable Property Tax obligates the owner, usufructuary or any other person considered to be the owner. The drive for efficiency by the RRA, which employs private sector practices, suggests that they would be able to gather the technical capacity for identification of buildings for valuation purposes as the UN-Habitat PT Guide recommends.

4.3.3 Tax Rate

The 2018 Immovable Property Law provides tax rates for land and buildings with an incremental increase component over a period of five years (Rwandan Revenue Authority, 2018). Rates have been increased to 1% of the market value for residential buildings, 0.5% for commercial and 0.1% for industrial and other buildings. Property values are determined as either the acquisition value of buildings purchased on open markets, value as determined by a certified valuer or value as determined by the computerised system (Rwandan Revenue Authority, 2018). Thus, Kigali has migrated from the recommended single rate suitable for administrative ease to multiple rates that could capture property values from various categories of properties. The capacity of RRA to increase revenues from these multiple rates remains to be seen.

4.3.4 Coverage

Kigali has benefitted from a land tenure regularisation process under the Rwanda Natural Resources Authority (RNRA) that enabled the demarcation, adjudication and digitisation of 8.4million titles, 90% of which were collected by property owners in Kigali (Franzsen & McCluskey, 2017b). The exercise, which began in 2008, was completed across the entire country in 2015 (Uwayezu & de Vries, 2020). The process was the responsibility of the Lands and Mapping Department within the RNRA and has been critical in identification of taxable properties (Franzsen & McCluskey, 2017b).

4.3.5 Valuation

Self-reporting of property value had previously been introduced as a strategy to check the administrative burden of developing valuation rolls. However, Goodfellow (2017) links this to low tax revenue generation because self-reporting provides massive opportunities for deliberate undervaluation. This opportunity is exacerbated by the lack of provisions guiding how property owners should obtain these values.

The 2018 law provides that property taxes remain the same for 5 years unless there is a major change in the property to the extent that its loses or gains 20% of its value. This is in line with the recommendation of value updates within 1-3 years in the policy brief.

4.3.6 Collection

An annual Taxpayer Appreciation Day is celebrated to recognise best performing taxpayers. Further, taxpayers have various options for remitting their payments, such as through Mobile Money, Infinity, Mobicash, E-banking, E-payment or at any commercial bank (Rwandan Revenue Authority, 2018). Anecdotal accounts from Chemouni (2020) show that taxpayers are careful not to delay payment due to the stiff penalties.

4.4 Lagos, Nigeria

4.4.1 Context

Nigeria is one of the few countries that operate a decentralised property tax system, having devolved to the state and local governments. Thus, the country is made up of a multiplicity of tax systems and jurisdictions as each of its 36 states makes its own laws (Aniyie, 2017; Odimegwu et al., 2018). Lagos is the acknowledged commercial and economic capital of Nigeria and provided leadership in generating internal revenue through property tax at a time the nation was coming out of decades of military misrule, with attendant political and financial stagnation (Fjestald et al., 2019). In 2001, Lagos passed its Land Use Charge Law (LUCL), which consolidated three existing property-based taxes (neighbourhood Improvement tax, tenement rates and ground rents) into a single tax. Babawale & Nubi (2011), reported the LUCL enjoyed only limited acceptability as expressed in calls for its withdrawal by stakeholders such as the Nigerian Institution of Estate Surveyors and Valuers, Nigerian Bar Association, Chartered Institute of Taxation of Nigeria, property owners and the business community. As a result of litigation and public agitation against opaque provisions for rate setting, penalties, tax liability and other issues, tax bills for 2001 were waived and massive discounts of up to 75% initiated to solicit compliance (Babawale & Nubi, 2011). However, the land use charge has been reported as an example of a success story in terms of revenue generation, with Collier et al. (2017) and Fjestald et al. (2019) attributing this success to the personal leadership of two successive governors of Lagos.

In 2018, a new land use charge law was enacted but, surprisingly, it retained most of the provisions that had brought public discomfit while also announcing increased rates, again to much public outcry by stakeholders. A new 2020 land use charge law was recently announced to repeal the 2018 Law. It reversed the land use charge to pre-2018 provisions and reduced some rates, but upheld the 2018 method of valuation. According to the Government, these reforms were made in response to the agitations of Lagosians to reduce the exorbitant rates of the 2018 law (Lagos State Government, 2020).

4.4.2 Tax Base

The land use charge is levied on the capital value of land with improvements. It uses an area appraisal model developed from a statutory formula (Babawale & Nubi, 2011). Ezomike and Isiadinso (2018), citing the now revoked 2018 law, note that the owner or the occupier of a property is liable for the tax if the lease term is less than 10 years. Where the lease is longer than 10 years, the owner is liable for payment. The law does not specify who is responsible if the lease term equals 10 years. However, a general provision of the LUCL that has survived through several revisions is that while the owner of the property is liable, any occupier may be declared as an agent, thus becoming liable to pay the charge. Such agent is expected to make the payments from monies due to the owner. This is another contentious aspect of the Lagos LUCL since inception because of the lack of state-wide records on property transactions and ownership in the city.

4.4.3 Tax Rate

Tax rates are set by the state government through the enabling law. The most recent law (2020 New Land Use Charge Law), introduced a 48% reduction in the annual charge rates. The rates vary by property type as listed in Table 1 (Akosile, 2020; Lagos State Government, 2020). It is notable that the rates for residential properties differ according to use and tenure, with owner-occupied properties charged the lowest and properties that are fully tenanted paying higher rates. However, the law introduced an ambiguous declaration for residential/private school. It is not unclear why these two building use types were lumped together, and this will certainly create difficulties for tax payers. Lagos utilises multiple rates, yet the ability to ascertain the accurate property type is limited by the depth of the real estate market and limited technical capacity to track changes in property use in the city of more than 20 million people. This creates a potentially difficult case for property tax effectiveness.

4.4.4 Coverage

Lagos was the first city to attempt to use GIS in property taxation in Nigeria, which produced a comprehensive digital map that contained the details of the land parcels and building areas in Lagos. Over a period of three years, Lagos recorded a 14-fold increase in the number of enumerated properties from

45,000 in 2007 to 635,000 in 2010 (Goodfellow, 2017). There were limitations however, as field enumerators had to undertake physical inspection to collect physical characteristics and unique attributes of each property. Thus, Lagos could not rely on an error free valuation roll.

4.4.5 Valuation

The 2001 LUCL provides that land value and building value rates are to be reviewed at least once every five years on the basis of value updates from professional valuers and consultants. The Commissioner for Finance is empowered to carry out periodic reviews of the value rates in comparison with the rate of inflation. However, the law did not specify how the professional valuers and consultants are to be held accountable; neither does it provide for questioning the basis of valuation or the basis for determining the proposed inflationary adjustments (Babawale & Nubi, 2011; Ezomike & Isiadinso, 2018). These shortcomings remain in the 2020 law. Thus, although the practice of updating values aligns with the recommendations of the UN-Habitat PT Guide for periodic updates and indexing in a 1-3-year period, lack of accountability and transparency to the taxpayers could affect compliance.

4.4.6 Collection

While the local government authority is authorised to collect property tax by the Nigerian Constitution, the 2001 LUCL provision for the 'devolvement' of this function to the state government has been retained in the new law. The Lagos State Government outsources collection to private sector agents, however Babawale and Nubi (2011) criticise this practice for lack of transparency and accountability to the public on revenues collected. Reflecting best practices in collection recommended by the UN-Habitat PT Guide, e-payment systems have eased the collection processes and discounts of 25% are offered for early payment before the due date (Lagos State Government, 2020). The law clearly spelt out penalties against evasion and delays, but the government has recently announced a waiver of penalties for 2017, 2018 and 2019. This could lead to increased revenue from property tax in the city.

5. Discussion

Clear areas of commonality are visible in the policy and practice of property taxation in the cities under review despite their having distinct systems based on their political and socio-economic frameworks. Each city has defined strategies within the tax policy elements with specified criteria for defining the tax base and settling the tax rate, and the tax administrative elements of maintaining the fiscal cadastre, valuation and collection, some of which have worked and others of which have failed. There are also challenges such as political interference that work against the system or have come to define the system with interesting outcomes. These are examined in turn.

For effective design of a property tax base, researchers such as Franzsen and McCluskey (2017b) opine that the tax base for property taxation should reflect the maturity of the property market. The UN-Habitat PT Guide adds that the administrative and technical capacities must be in place for adopting more complex practices such as levying buildings and linking the base to market values. All the cities in the study levy buildings, either alone or in addition to land. Lagos is the only city that levies both land and building in the same tax while Kigali charges a building tax separate from a land tax and Addis Ababa charges a building tax separately from a land rent. The concern about lack of capacity to identify and value buildings is most visible in Addis Ababa, which is distinct in the severe undervaluation of its taxable properties stock.

Similarly, while previous research recommends the use of the non-value area basis as a first step towards a market-based assessment basis, all the cities linked the tax base to a value component, which requires administrative, technical and financial resources to update. All the cities also levy property owners with the general assumption that they stand to benefit from the rents arising from their properties either directly (when it is let), or indirectly, when it is owner-occupied.

Setting the tax rate is a critical property tax revenue element. It is also fraught with political interference. Dar es Salaam, Addis Ababa and Kigali are similar in having tax rates set by the federal government by law. Lagos is the only city in the study where the state government sets its rates, reflecting the devolution of property tax from the federal Nigerian government. Thus, responsibility for tax setting depends on the political context of the country. On the other hand, Lagos and Kigali are similar in setting multiple rates for different categories of property use. This can potentially undermine effectiveness if the recommendation of the UN-Habitat PT Guide for administrative and technical sophistication in identifying and levying properties is not in place. Kigali's rates were announced in 2018; there is as yet little literature to assess their performance. The dependence on flat rates in Dar es Salaam and Addis Ababa also has implications. Although the simplicity and administrative ease is advantageous for effectiveness, as emphasised by the UN-Habitat PT Guide, the flat rate approach does not optimise revenues as it fails to capture the true market value of properties.

There is evidence of political interference in rate setting, however, across all cases. In Kigali the influence of a politically strong, elite property-owning class has been instrumental in delaying increases in rates while in Addis Ababa the delays have been made to placate powerful, middle income groups who own properties within the city. In his analysis of Kigali and Addis Ababa, Goodfellow (2017) had predicted that political interests would continue to impede the ability to increase rates in Kigali. Interestingly, these political interests have been checked by the personal intervention of the president as Chemouni (2020) shows. The 2018 Immovable Property Tax Law reforms have made tax on rental income more progressive. The performance of the law will be instrumental to increasing Kigali's property tax to GDP ratio

going forward. The success of the 2001 land use charge in Lagos was due to the personal leadership of two successive governors (Collier et al., 2017; Fjestald et al., 2019). While the issue of powerful, autocratic leaders versus democratic governance and political clientelism in African politics is a subject of much interest, in-depth discussion of these is not within the scope of this paper. However, the examples of Kigali and Lagos show the potential for enacting bold and far-reaching reforms if a powerful leader supports and resonates with the oft-cited ‘political will’ critical for addressing some of urban Africa’s seemingly intractable problems.

Academic researchers (Babawale & Nubi, 2011; Namangaya, 2018; Balogun, 2019; McCluskey & Huang, 2019) agree that there is value in using an information and communications technology (ICT) system to manage the fiscal cadastre. GIS have been used successfully in all four cities, at various scales to identify properties and increase the number of properties captured in the cadastre. However, the use of GIS for property taxation thrives when there is a linkage between the cadastre and other city business data, as Namangaya (2018) argues and as recommended by the UN-Habitat PT Guide. It is also important to note the financial cost, time and technical manpower that are required to set up the system. The literature shows that African countries that utilise GIS, such as Tanzania, have been supported by foreign funding. Where the property tax administration function is not domiciled in one cadre of government, there is also need for co-operation. Again, Dar es Salaam is a good example of how lack of inter-governmental co-operation undermines efficiency.

For property tax to be effective, property values need to be periodically updated to ensure the tax is reflective of the current tax base. The UN-Habitat PT Guide recommends a periodic review every 1-3 years, with indexing in between. Addis Ababa has not updated values since 1996, which creates significant revenue loss. Lagos and Kigali have incorporated value updates into their laws, albeit in different ways. While Lagos allows for value increases every five years, it also provides that the Commissioner for Finance can increase the rates in line with inflation. However, the law did not provide guidelines for how this is to be implemented. The law in Kigali requires percentage increases for five years. The implementation of these provisions will no doubt increase revenue generated from property taxation in Lagos and Kigali over time although taxpayer education will be required to ensure compliance.

One area of differentiation across the cities is who is responsible for updating values. The UN-Habitat PT Guide recommends this task be handled by local governments while acknowledging that they may need the support of higher tiers of government. In Ethiopia and Tanzania (Addis Ababa and Dar es Salaam), updating of values is vested with the local governments while in Rwanda, it is a federal function. Lagos state is firmly in control of valuation updating in line with the federation structure of Nigeria.

The literature shows that lack of effective collection has been the bane of property tax revenue generation in Africa. Cumulative arrears contribute to inefficiencies that require the adoption of ‘collection-led’ rather than ‘valuation-pushed’ reforms to tackle due to current low collection rates and high default rates (McCluskey & Franzsen, 2016; Fjestald & Goodfellow, 2017). However, a push towards collection reforms might create some inequities, for instance where the focus is on collecting from the poor and unheard who are easy targets and do not wield the political power of the elites who often utilise their powerful political base to thwart attempts at taxing their real estate directly, as reported for Dar es Salaam in Fjestald et al. (2019). This might explain why the UN-Habitat PT Guide recommendation for increasing collection efficiency promotes making the process easy and accessible for taxpayers and enforcing penalties for non-payment. There has been a focus on collection reforms in Dar es Salaam, Lagos and Kigali through outsourcing services to the private sector and introducing more accessible payment platforms.

The use of private tax consultants to collect payments rather than local council employees in Dar es Salaam and the use of Ministry of Finance staff in Lagos has helped to stem corrupt practices and improved efficiency in both cities. However, their use in collection and enforcement in Lagos has been criticised because the law did not specify how they are to be held accountable. Lagos, Dar es Salaam and Kigali have identified non-physical payment platforms such as electronic systems offered by commercial banks for taxpayers to use from the convenience of their homes with their mobiles. These are in consonance with best practices for collection effectiveness detailed in the UN-Habitat PT Guide. Collection reforms therefore help in improving efficiencies and should be incorporated into property tax administration.

6. Conclusion

This study has explored property tax administration in cities in East and West Africa. Each city’s system of property taxation has unique attributes, yet a quest for optimising revenues remains a common aspiration. As each city continuously seeks improvements, they have navigated several reforms, some successfully, and others not. Their experiences provide lessons for implementing system wide and specific component reforms that would be useful for rapidly growing African cities.

Efficiency driven reforms are a factor in successfully improving property tax administration systems. Such reforms are often undertaken as a part of a national land reform or local government finance reform, or as a response to the need to raise revenue. Tanzania recentralised its property tax operations in 2016 in a bid to ensure accountability and increase revenues. Rwanda’s recent reform has addressed factors that reduced revenue generation from its property tax sector. Dar es Salaam and Kigali will both benefit from higher property tax revenues if these reforms are properly implemented. When Lagos merged three property related taxes into one, it was seen as a laudable,

ambitious project that eventually raised the internally generated revenue of the city significantly. Cities like Addis Ababa that have not made any changes in their property tax policy and administration processes can benefit if core aspects of their tax policies are reviewed. However, system wide reforms must be carried out within a framework of political stability and intra-governmental co-operation that permits information sharing and seamless alignments between the property tax sector and other governmental processes. As the case of Dar es Salaam shows, this is even more crucial if responsibility for various parts of the property tax system is distributed among different agencies.

Literature shows the challenges that might confound centralised systems where the federal government, through its tax agency, has overarching responsibilities for property tax policy and administration, yet depends on others for vital information. The Tanzanian experience presents an example. Although Tanzania's first step towards centralisation of property tax yielded higher collection rates, sustainability was limited due to lack of co-operation from the local governments, who were still required to carry out important processes such as updating the cadastre. Thus, centralised systems may suffer where the anchor agency has no direct access to local information on the property tax base to develop property registers. In contrast, decentralised systems are able to access local information to develop property tax registers and may be better able to connect property tax compliance with local services, which can motivate greater compliance and voluntary payment. It is therefore important that mechanisms are in place where separate agencies are in charge of elements of the property tax to harmonise their databases, and structures are in place to enhance co-operation, such as revenue sharing. In addition, a critical step to improve intra-governmental cooperation is to link all basic revenue administrative components of property tax (maintenance of property registers, billing and enforcement) with other revenue sources such as business (permits, house rents, land rents and user charges, water and electricity). Access to this combined database would be beneficial to all agencies and potentially provide additional motivation for intra-governmental cooperation.

An efficient property tax system will enable African cities tap into the revenues from current and future investments in their real estate markets. What is required therefore is to ensure that the potential tax revenues from new commercial and residential developments are captured. This calls for a systematic linkage between real estate investment and property taxation in a manner that also links other government agencies such as the planning offices (that issue development permits) so as to capture new developments. A land information system would serve this purpose. Technology-driven reforms for tax base identification, updating the cadastre, collection and monitoring compliance have been very effective in cities such as Kigali, Lagos and Dar es Salaam. Technology offers both short-term wins (such as e-payment platforms) and long-term benefits (such as GIS enabled fiscal cadastre) to support property taxation and can be explored in various city contexts.

The political economy system that dictates how the functional tiers of government interact represents a far more potent threat to the generation and use of property tax revenues for urban improvement than property tax administration. Power structures within government and struggles between a constitutionally recognised local government and a dominant tier of government (such as state government) create issues. Such struggles exist between the federal government and the cities in Tanzania and Rwanda and the state and city governments in Lagos. Property tax is the most visible (and often viable) means of local revenue generation in other parts of the world; however, in Africa, the property tax functionality of local governments has been relegated by the tiers of government meant to support them. Dar es Salaam and Lagos have suffered from lack of technical and financial capacity. Lagos has been politically dominated by a very strong higher tier of government. Nevertheless, local governments represent the level of governance where local problems are identifiable through community involvement. There is a need to strengthen their human resources and their financial, governance and technical capacity to perform functions such as updating the cadastre and monitoring compliance. The RRA's adoption of private sector ethos in operating as a quasi-public organisation has improved staff capacities. A similar approach of retraining and reorientation at the local government level could trigger efficiencies in the property tax sector.

Importantly, while a review of the property tax administration systems in the case studies has generated a better understanding of the dynamics shaping property tax revenues and identified some strategies to overcome recurring challenges, new questions have also emerged. One of these is the role of local interest groups such as property owners, professional bodies and industry in policy formulation and administration. Public dissatisfaction after the announcement of changes in property tax components in Lagos and Addis Ababa were evident. However, there has been little discourse on how these groups should be engaged in the steps of property tax policy making and implementation. Secondly, there is the question of how tax revenues are used to provide community-based infrastructure. This links to the need for improved stakeholder participation. Addressing these issues would strengthen compliance and potentially increase the sustainability of successful reforms.

In the final analysis, an evaluation of the property tax systems of four African cities indicates that reforms have been undertaken that have improved performance to a varying extent in recent years. The conversation on how to continually improve is still relevant for both academic research and policy processes. Thus, property taxation is not yet an optimised driver for revenue generation for more liveable cities in Africa.

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