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How to cite: Badiora, A. & Ojo, D. 2021. Perceived constraints to public participation in contemporary Nigerian land-use planning. *Town and Regional Planning*, no.78, pp. 16-33.

Perceived constraints to public participation in contemporary Nigerian land-use planning

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DOI: http://dx.doi.org/10.18820/2415-0495/trp78i1.2
Received: June 2020
Peer reviewed and revised: August 2020
Published: June 2021
**The authors declared no conflict of interest for the article or title*

Abstract

Public participation (PP) has become a major feature of land-use planning, sanctioned by national and international laws as a platform for state, civil societies and citizens' engagement. However, there is a dearth of information regarding ethnic minorities and marginalised groups about their interests and limitations in participatory planning. This article examines the level of citizens' involvement and the constraints to participation in land-use planning. It analyses whether these constraints hinder some society groups more than their counterparts. These were examined using sampled participants in Nigeria. To test for the conceptual variance, factor analysis was used, while the likelihood of being hindered as against respondents' socio-demographic characteristics was examined, using logistics regression. Findings show a low level of PP and yield a four-factor solution explaining 66.42% of the variance in PP. More hindrances to PP were perceived by ethnic minorities, the aged, females, tenants and rural dwellers compared to their counterparts. This gap between these community groups in PP was due to individual, community, and institutional factors. The article concludes that the structure of the Nigerian society still favours specific socio-demographic groups, even though the democratic transition and the subsequent constitutional amendments give all residents equal rights to political participation. There is the need for public policies, community and private investment to remove these constraints and make the PP programme truly public and attractive to all. The government and town-planning agencies may use the results in this article to help enhance their understanding of the hindrances to PP.

Keywords: Land-use planning, marginalised groups, public participation, socio-ecological factors

WAARGENOME BEPERKINGS VIR OPENBARE DEELNAME AAN HEDENDAAGSE NIGERIESE GRONDGEBRUIKSBEPLANNING

Openbare deelname (OD) het 'n belangrike kenmerk van grondgebruikbeplanning geword, wat volgens nasionale en internasionale wette as 'n platform vir staat, burgerlike samelewings en burgers se betrokkenheid goedgekeur word. Daar is egter 'n gebrek aan inligting rakende etniese minderhede en gemarginaliseerde groepe oor hul belange en beperkings in deelnamebeplanning. Hierdie artikel ondersoek die vlak van betrokkenheid van burgers en die beperkings op deelname aan grondgebruikbeplanning. Dit analiseer of hierdie beperkings sommige samelewingsgroepe meer belemmer as hul eweknieë. Hierdie is ondersoek met behulp van deelnemers in Nigerië. Om vir die konseptuele variansie te toets, is faktoranalise gebruik, terwyl die waarskynlikheid om belemmer te word teenoor respondente se sosio-demografiese eienskappe, met behulp van logistieke regressie ondersoek is. Bevindinge toon 'n lae vlak van OD en lewer 'n vier-faktor oplossing wat 66,42% van die variansie in OD verklaar. Meer hindernisse vir OD is deur etniese minderhede, bejaardes, vrouens, huurders en landelike inwoners gesien in vergelyking met hul eweknieë. Hierdie gaping tussen hierdie gemeenskapsgroepe in OD was te danke aan individuele, gemeenskaps- en institusionele faktore. Die artikel kom tot die gevolgtrekking dat die struktuur van die Nigeriese samelewing steeds spesifieke sosio-demografiese groepe bevoordeel, alhoewel die demokratiese oorgang en die daaropvolgende grondwetlike wysigings alle inwoners gelyke regte tot politieke deelname gee. Daar is openbare beleide, gemeenskaps- en private beleggings nodig om hierdie beperkings te verwyder en die OD-program werklik publiek en aantreklik vir almal te maak. Die regering en stadsbeplanningsagentskappe kan die resultate in hierdie artikel gebruik om hul begrip van die hindernisse vir OD te verbeter.

Sleutelwoorde: Grondgebruiksbeplanning, gemarginaliseerde groepe, openbare deelname, sosio-ekologiese faktore

PHUPUTSO EA MABAKA A SITISANG SECHABA HO NKA KAROLO MERALONG E MECHA EA TŠEBELISO EA MOBU NAHENG EA NIGERIA

Ho nka karolo hoa sechaba (PP) ho fetohile nthla e kholo ea meralo ea ts'ebeliso ea mobu, e lumelletsoeng ke melao ea naha le ea machaba e

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le sethala sa boitlamo ba mmuso, mekhatlo ea sechaba le baahi. Leha ho le joalo, ho na le khaello ea tlhaiso-leseling mabapi le merabe e meng le lihlopha tse khetholloang ka lithahasello tsa tsona le bofokoli ba tsona ba ho nka karolo. Sengoloa sena se hlahloba boemo ba ho nka karolo ha baahi le litšitiso tsa ho nka karolo mererong ea ts'ebeliso ea mobu. E sekaseka kamoo lithibelo tsena li ka sitisang lihlopha tse ling tsa sechaba papisong le lihlopha tse nkang karolo mererong le meralong ena. Tsena li ile tsa hlahlojoa ka ts'ebeliso ea baemeli ba khethiloeng naheng ea Nigeria. Ho lekola phapang ea mehopolo, tlhahlobo ea lintlha e sebelisitsoe, 'moho le ea menyetla ea ho sitisoa khahlanong le boleng ba sechaba le palo ea baemeli ba khethiloeng. Liphuputso li senotse boemo bo tlase ba PP 'me li fana ka tharollo ea lintlha tse 'ne e hlalosang 66.42% ea phapang ea PP. Litšitiso tse ling ho PP tse lemohiloeng, ke merabe e meng, maqheku, basali, bahiri le baahi ba mahaeng, papisong le lihlopha tse ts'oanang empa tse nkang karolo meralong. Lekhalo la ho nka karolo lipakeng tsa lihlopha tsena tsa sechaba le bakiloe ke maemo a batho ka bomong, a sechaba le a litsi tse fapaneng. Sengoloa se phethela ka hore sebopeho sa sechaba naheng ea Nigeria se ntse se eteletsa pele lihlopha tse ikhethileng tsa sechaba, leha phetoho ea demokrasi le liphetoho tse latetseng tsa molaotheo li fa baahi bohle litokelo tse lekanang tsa ho nka karolo lipolotiking. Ho na le tlhoko ea maano a sechaba, matsete a sechaba le a litsi tse ikemetseng ho tlosa litšitiso tsena le ho etsa hore lenaneo la PP e be la 'nete la sechaba, hape le khahlisang bohle. Mmuso le litsi tsa meralo ea litoropo li lumelletsoe ho sebelisa sephetho sa sengoloa sena ho thusa ho ntlafatsa kutloisiso ea bona ea litšitiso tsa PP.

1. INTRODUCTION

In contrast to the state, as the institution that makes and enforces decisions, contemporary interest in land-use planning reflects a move towards the inclusion of residents (alongside other non-state actors) in decision-making processes that affect the built-up environment, in which they live, work and recreate. As a global movement, this bottom-up approach has been specially promoted in the global South. In Nigeria, for instance, it is embedded in Sections 13 and 16 of the Nigerian Urban and Regional Planning (NURP) Decree No. 88 of 1992. The Rio Declaration on Environment and Development (1992) stresses the principle of public participation (PP). PP is well entrenched in the International Covenant on Civil and Political Rights and the African Charter on Human and Peoples' Rights (Hunter, Salzman & Zaelke, 2007: 12-13). Furthermore, global financial institutions (the World Bank, IMF) have required states to work collaboratively with civil society via institutions of PP as part of a global rescaling towards the localisation of democracy (Williams, 2004: 560).

While this collaborative decision-making is typically associated with state withdrawal from absolute power, it has also provided the framework for participatory land-use planning (McEwan, 2003). In the global South, in particular, this localised PP package was expected to provide a voice for the underprivileged, and ultimately secure an inclusive city (Pieterse, 2002: 32-33). PP is conceptualised as a multi-actor process involving interaction between various stakeholders (formal institutions of government, business, community groups and residents) collaborating to make decisions about the allocation of resources within a defined territorial space (Lemanski, 2017: 45). Despite widespread implementation in cities throughout the world, state-led PP processes fail to translate their idealism (including the public in decision-making) into practice. For instance, there is a low PP (Maroula, Diofantos, Phaedon & Konstantinos, 2016: 2) in developing countries (Muse, 2014: 115) such as Nigeria (Adedoyin, 2014: 35). A number of researchers have debated that PP practice in developing countries has failed, to some extent (Nguyen, Le & Tran, 2015: 41; Nhlakampho, 2010: 62-63; Jiman, Foziah & Zayyanu, 2017: 32). In developed countries, studies have shown that PP is below the minimum required by the law (Magee, 2012: 23; Hatley, 2013: 32). For instance, in studies conducted by Neidhart (2013: 86) and Commodore (2013: 78), only 5% of 100 randomly selected land-use plans from Oslo, Bergen and Trondheim, had implemented any PP beyond the mandatory minimum requirement.

Generally, the low PP could be linked to macro and micro forces. According to Jiman, Foziah and Zayyanu (2016: 2), the hindrances emanating from the government's agencies are regarded as the macro forces, while those obstacles from individuals in the community are referred to as the micro forces. Both forces are moulded into what is referred to as the Socio-Ecological Model (SEM) (Sulaiman, Othman, Samah, Yero, D'Silva & Ortega, 2014: 2440). In addition, the challenges of PP are further pronounced in developing countries, due to numerous restraining forces such as diverse ethnicity and sociocultural, historical and behavioural patterns (Ojigi, 2012: 2). Previous findings indicate that the military government has been the cause of low PP (Oloyede, 2010: 190), while others show that the democratic government has the potential of supporting PP, since both ideologies share similar principles (Lemanski, 2017: 45). Nigeria's post-military rule led to great expectation, including assumptions that the new institutional democracy would translate into greater involvement in decision-making for residents. Surprisingly, a recent study shows that power allocation is yet to be effectively embraced between the citizens, urban planning agencies and the government in participatory processes (Jiman, 2017: 67; Badiora, 2020b: 315; Badiora, Bako & Olaleye, 2020: 18).

While many studies have assessed PP (Adedoyin 2014: 32-37; Muse, 2014; Gene, 2009: 91; Jiman *et al.*, 2016: 1-5; Nguyen-Long *et al*., 2019:

541-571; Mlambo & Kapingura, 2019: 168-198; Badiora, 2020b: 315-326), there is a dearth of studies in sub-Saharan Africa, particularly in Nigeria, on how micro and macro factors apply to ethnic minorities and specific socio-demographic groups. A number of Western studies, which identified constraints to PP (Braun & Kroop, 2010: 31; Rowe, Horlick-Jones, Walls, Poortinga & Pidgeon, 2008: 20; Schroeter, Scheel, Renn & Schweizer, 2016: 120), have failed to examine how these constraints affect different socio-demographic groups. However, there is a vital constraint relating to the socio-demographic context in which PP is implemented. The implementation of a PP that relies on pre-existing socio-demographic structures in an historic context of extreme socio-economic inequality (Nigeria) has entrenched exclusion and institutionalised a two-tiered form of uneven residency: indigenes and non-indigenes. The non-indigenes are the minority who are migrants and/or settlers from another region. They remain minorities, despite the number of years' residence in the country. The general perception in Nigeria is that non-indigenes must contend with a range of inequitable practices such as, among others, barriers to PP and local community associations. Against this background, this article explores how participatory land-use planning functions in the context of an extremely uneven Nigerian town. It specifically highlights how SEM factors can hinder rather than assist local democracy. In a novel approach, this article examines whether ethnic minorities (non-indigenes) and the marginalised social class, including rural dwellers, females, tenants and aged, are being hindered more by these factors than their counterparts such as the ethnic majority (indigenes), urban dwellers, males, landlords, and younger residents.

2. LITERATURE REVIEW

In order to understand the constraints to PP in land-use planning, it is important to introduce the current theory on the concept of PP, land-use planning and PP in Nigeria as well as the SEM included in this article.

2.1 Concept of public participation

Wesselink, Jouni, Fritsch and Renn (2011: 558), and Schroeter *et al.* (2016: 117) have attempted to explain what a good PP process should entail. Nonetheless, there is no commonly used definition of the concept. PP is often used interchangeably with other terms such as political participation, citizens' participation, citizens' involvement or engagement, which does not reflect the difference between multiple types of participation (for example, between casting a vote or taking part in a citizens' engagement) (Catt & Murphy, 2003: 411).

A commonly used definition of PP refers to all activities that are voluntarily undertaken by citizens to influence political decisions at any stage of the political process (Schroeter *et al.*, 2016: 115). Criteria such as the reference to voluntariness, rational action, or exertion of influence, embedded in this definition, can be found in many other studies on PP (O'Faircheallaigh, 2010: 30; Rowe & Frewer, 2005: 17). To further define PP, some authors emphasise the methodical and organised character of PP processes. For instance, Renn, Webler and Wiedemann (1995) define PP as formats for exchange that are organised for the purpose of facilitating communication between government, citizens, stakeholders, interest groups, and businesses regarding a specific decision or problem. The organised and methodical character of different participation methods refers to many organisational and logistic questions (Schroeter *et al.*, 2016) such as what category and how many people can be included in the process. In a more comprehensive way, Schroeter *et al.* (2016: 118) define PP as a set of processes that include representatives of different social groups, organised by a third party, with the purpose of initiating a discourse and cooperative counselling process aimed at informing collectively binding decisions.

From these definitions, the first criterion of PP is inclusiveness, which refers to the number of stakeholder groups that are represented within a PP process. This criterion also refers to the democratic principle of equality. A representation of all affected groups and their free competition constitutes an important cornerstone of PP. If inclusiveness within a PP process is jettisoned, affected but ignored community groups will likely reject the whole process and its outcomes. The policymakers working on decisions that entangle different community groups with diametric positions are usually faced with this problem (Schroeter *et al.*, 2016: 120). Hence, every society group should have an equal occasion to be heard during the decision-making process involving their livelihood (Laird, 1993: 350). In this study, therefore, inclusiveness is operationalised, in order to measure the quality of a PP in land-use planning in a Nigerian setting. For this PP criterion, several SEM measures are outlined and used as empirical factors for evaluating constraints to inclusiveness in PP processes.

2.2 Land-use planning process and public participation in Nigeria

Nigeria had her own unique land-use planning system prior to the advent of the colonial administration. During this period, land-use decisions were vested in traditional rulers (Obis, Obas and Emirs) who held the land in trust for members of their community. At that time, PP was not in place, as only community leaders had the absolute power to allocate, re-allocate and administer land-use within their jurisdiction. With the arrival of the colonial administration, the traditional land-use planning systems became unpopular. There was the promulgation of the 1863 Town Improvement Ordinance (which gave district officers the power to control land development) that further

obscured the traditional land-use planning system, especially in urban centres. Later, the 1946 Town and Country Planning Ordinance made provision for the physical planning, improvement and development of different parts of Nigeria through the use of planning schemes usually developed and implemented by the technocrats. The 1946 Ordinance was based on the 1932 British Town and Country Planning Act and remained the most comprehensive land-use planning law for over two decades after independence (Oduwaye, 2009: 384), even though PP was shunned in this regulation.

The NURP Decree No. 88 was enacted in 1992. For the very first time in Nigeria, land-use planning law not only set out the roles of different levels of government and agencies, but also outlined the specific roles of the citizens/the public. The citizens' roles were clearly outlined in Sections 13 and 16 of the Decree. According to this Decree, land-use planning is a process and not a "single-short action" of technocrats or government agencies (FRN, 1992: 182). Hence, a land-use planning process was set up, adapting some features of the British land-use planning procedure and what was in practice in Europe, America and some Asian countries. In addition, stages within this process where PP is required (emulating some of the ladder of citizen participation framework [Arnstein, 1969: 218]) were also conspicuously specified (see Table 1). Under this decree, the government agency has to publicly notify its intention in the national media, and thereby invite interested members of the public to submit their opinions on the draft plan, as well as present opportunities for people to challenge the final decision in case of any complaint (see Table 1).

In this study, seven stages of the Nigerian land-use planning process requiring PP (issuance of notification, collection of information, analysis of information, formulation of alternative plans, and publication of draft plan, notification of plan as well as compliant) were later evaluated to determine the level of citizens' involvements in the study area. Other stages were excluded, since PP was not required by the NURP Decree.

Table 1: Land-use planning phases and public participation under the Nigeria Decree 88 of 1992

S/N	Land-use planning phase	Description	PP required
1	Identification of problem or issues	This involves discovering land-use problems that need to be resolved. This is usually an on-going process in the country.	Null
2	Development of land-use planning benchmarks	This phase establishes limitations and guidelines for the land-use planning process. For instance: streamline the process; establish standards, rules, and measures; set the scope of inventory and data collection; identify the range of alternatives, and estimate the extent of problem and analysis.	Null
3	Issuance of notification	At this stage, the proposal is published in the government register and the local media, among others. The notice identifies the preliminary issues and planning benchmarks and provides for a public review and comment period. This is also the start of the formal PP process, inviting the public to identify issues that need to be resolved.	Public appraisal and remarks
4	Collection of data	This stage collects data based on the planning benchmarks. Data are generally collected from existing sources while new data collection may also be needed to resolve the planning problems identified.	Data supply by the public
5	Analyse the data	This involves the analysis of the current management situation, physical and biological characteristics, and the capability and condition of the resources. This analysis provides a reference for developing and evaluating alternatives.	Public appraisal and remarks
6	Formulation of alternative land-use plans	This stage identifies a range of reasonable combinations of resource uses and management practices. It also includes the development of alternatives that address problems identified and that offer a distinct choice among potential management strategies.	Public appraisal and remarks
7	Evaluation of alternative plans	At this stage, the appraisal of the impacts of each alternative on the environment and management situation is examined.	Null
	Selection of the best alternative plan	At this stage, the officer recommends a preferred alternative that best resolves the planning problem and promotes balanced multiple use objectives. The concerned government representative approves the preferred alternative along with the other alternatives under consideration.	Null
8	Publication and review of draft land-use plan	A notice of availability is published, among others, in the government register and in the media. This notifies the public of the availability of the draft plan/EIS and provides for a public review and comments period.	Public appraisal and remarks
9	Prepare the final land-use plan	At this stage, responses to the comments received during the review of the draft (Stage 8) are used to prepare the final plan.	
11	Notification of final land-use plan	A notice of availability is published in the government register and in the media. This notifies the public of the availability of the draft plan/EIS and provides for any protest.	Public appraisal and remarks
12	Complaints	Public complaints are recorded at this stage. The government representatives may approve the portion of the final plan that is not under any protest, while withholding decisions on others.	Public complaint to decisions
13	Land-use plan approval	As soon as the complaints have been resolved, the government representative approves the plan by signing it.	Null
14	Land-use plan implementation	This is the action stage. The approved plan is executed.	Null
15	Land-use plan monitoring and appraisal	This stage ensures that the plan is continually monitored and evaluated until it is replaced or another problem surface.	Null
Note: EIS – Environmental Impact Statement. Some of the land-use planning steps can be done concurrently, while others must be accomplished before another step can start. For instance, the alternative plans have to be formulated before a preferred alternative plan can be determined.			

Source: Adapted from (FRN, 1992) the NURP Decree No. 88, Sections 13 and 16 of 1992

2.3 Socio-Ecological Model (SEM) and constraints to public participation

SEM is significantly instrumental in explaining the elements of PP. SEM is based on the premise that people must have some kind of interaction with their community, in order to understand and gain perspectives on components that shape their behaviours. Individuals were viewed as nested within systems of five environmental levels: the microsystem, mesosystem, exosystem, macrosystem and chronosystem (Sulaiman *et al.*, 2014: 2440). SEM comprises several immediate environmental contexts, including individual, social, and institutional. According to Sulaiman *et al.* (2014: 2443), the core principle of SEM is that multiple factors influence behaviours. Thus, SEM provides a good conceptual model to investigate the complexity of PP. On the practical application, interaction with a specific context will influence a person's decision to either accept or decline to participate in a political process. Thus, understanding every possible context in the system will give substantial information toward factors influencing participation.

Concerning SEM, four factors may influence PP: individual, community, organisational and government. The individual factors include individual perception of land-use planning, awareness of the proposed land-use plan, and concern about personal safety (Jiman *et al.*, 2016: 3-5; Bloomberg & Sandfort, 2012: 18-22; Neidhart, 2013: 43-49). Individual commitment to public policies has been associated with PP (Adedoyin 2014: 36; Chidi, 2014: 211; Adekola, 2007: 123). In essence, citizens are supposed to be more proactive and give full attention to political processes affecting their community.

At the communal level, forces that shape PP are community cohesion, place attachment, community organisational support, and community leadership. Community cohesion is a common vision and feeling of belonging in a community (Lev-Wiesel, 2003: 240; Faniran, 2016: 89). Place attachment is an individual's feelings about his/her emotional bonds, belief and attitude to a particular place (Auh & Cook, 2009: 381; Faniran, 2016: 89). Studies have shown the association between cohesion, attachments and the willingness to participate in community politics (Faniran, 2016: 211). According to Goeppinger (2002: 2), community leadership is an action by individuals who make specific and distinctive contributions to a community. For the challenges of PP, much effort is focused on leadership constraints such as visionary impact, headship, as well as internal and external challenges (Bloomberg & Sandfort, 2012: 18; Conroy, 2011: 477; Neidhart, 2013: 87). Community organisational support is an institute developed by the community in a specific area to manage the programme in that domain. The ultimate objective of having this organisation is to plan and implement programmes that can benefit all the residents directly and/or indirectly (Sulaiman *et al.*, 2014:247; Jiman *et al.*, 2016: 3-5). In many instances, the worth of community organisation on PP cannot be repudiated.

The planning organisation (as an agency of government) may also impact on the public to actively participate in land-use planning. In fact, previous studies have focussed on institutional factors (Bloomberg & Sandfort, 2012: 22; Conroy, 2011: 470; Neidhart, 2013: 67). This study focuses on the perception of town-planning service, quality of town planners' contact with the public, and satisfaction with town-planning service. A recent study found that, when people have a positive perception of town-planning service, they tend to participate more than those who did not perceive town-planning service as positive (Badiora, 2020a: 9). Several studies have discussed the influence of government with regard to macro factors. For instance, Sulaiman *et al*. (2014: 2446) believe that governmental factors influence PP in specific programmes. Adekola (2007: 126), Suffian, Hadi, Jamilah and Jeffrey (2012: 77), Anierobi and Efobi (2013: 118) as well as Muse (2014: 120) unanimously concluded that government factors such as policies, inter-agency/-departmental collaboration, media, and ICT influence may affect PP.

3. THE STUDY AREA

The Federal Republic of Nigeria, in West Africa, returned to full democracy in 1999 after a long period of military dictatorship. The country is extremely diverse, with over 250 ethnic groups (Mabogunje, 1968: 74). The main ethnic groups are the Hausa-Fulani, Yoruba, and Igbo, who are domiciled in the northern, western, and eastern regions, respectively. Nearly two-thirds of Nigerian residents live in cities (Adegbami & Uche, 2015: 57). As a result of the ethnic diversity, marginalisation, bias, and partiality are prevalent practices among different Nigerian regions and states to such an extent that ethnic minorities must contend with a range of inequitable practices such as barriers to political participation, among others. Widespread poverty and bad governance have created a huge disparity between rural and urban centres and income groups. The Nigerian culture intrinsically limits the involvement of groups such as the youth and women in political processes. For instance, women are primarily believed to belong in the "kitchen" and not in community leadership. Thus, Nigeria provides a particularly interesting case study for exploring PP for two reasons: first, in practice, PP rights are relatively new for some citizens and, secondly, the post-military rule Nigerian state has prioritised PP forms of governance.

At present, there are 36 states in Nigeria, with the capital city located in Abuja. This study is purposively carried out in Osun state (Figure 1), a geopolitical space that hosts a wide socio-economic and demographic range of citizens. Many land-use developments have emerged in the state over the past ten years. A number of these developments require PP for legal requirements and location within the large built-up and agricultural areas.

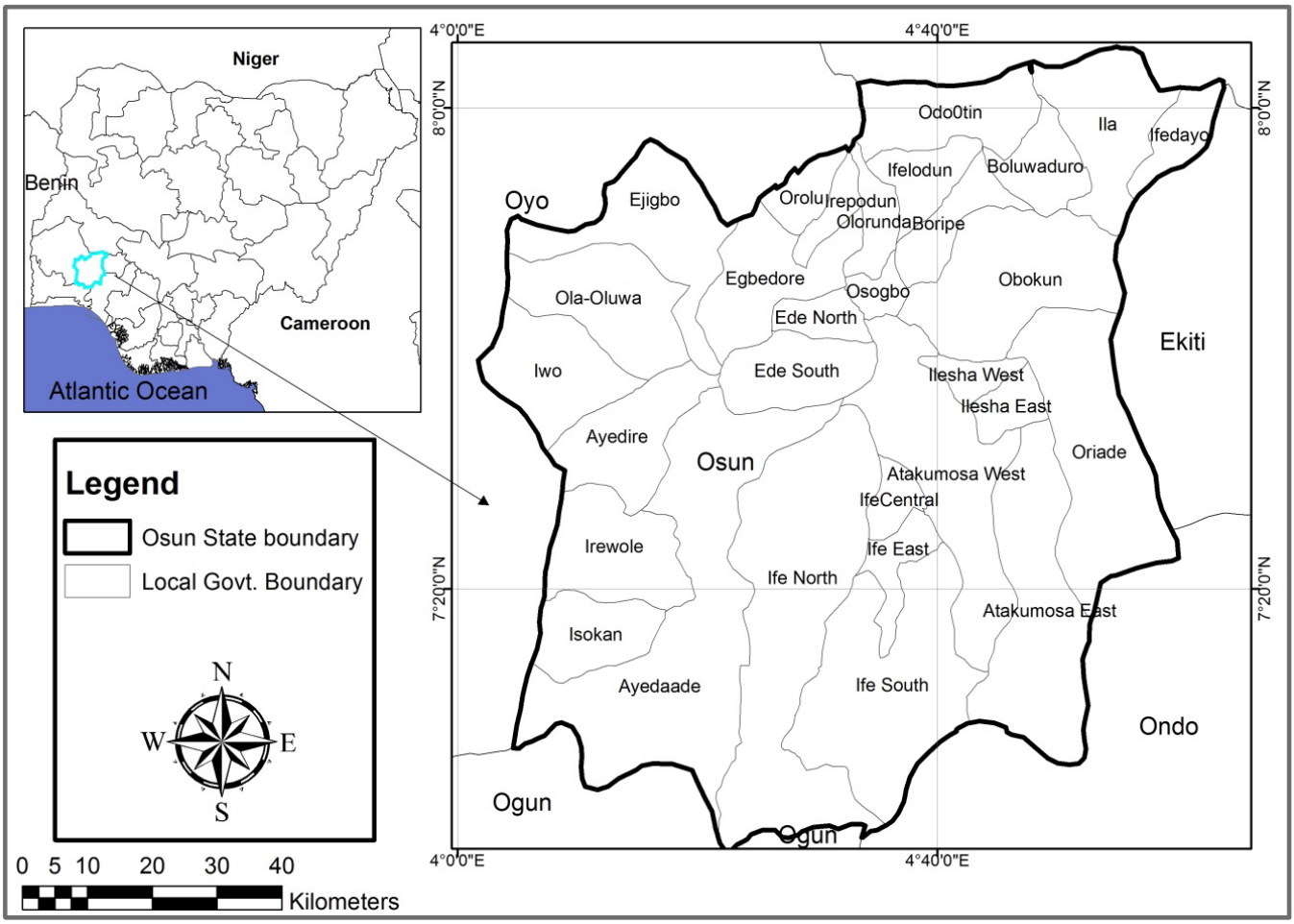

Figure 1: Map of Nigeria indicating Osun State
Source: COPINE, 2016: 7

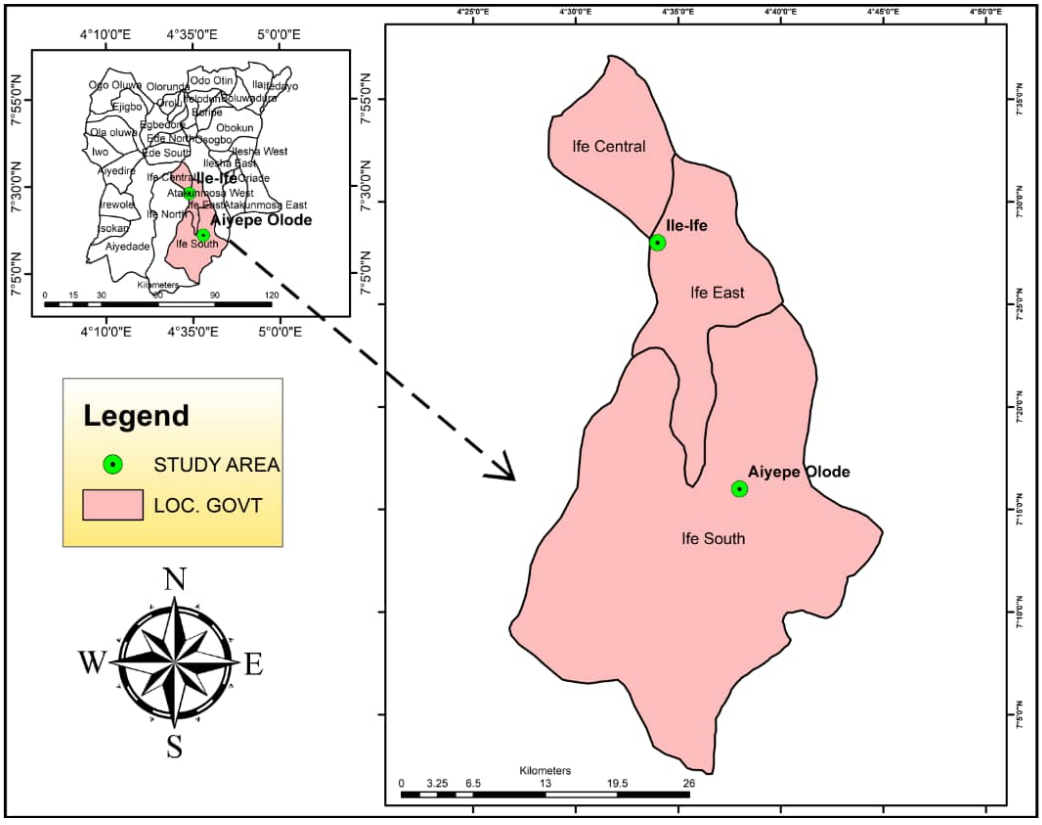

Figure 2 Map of Osun State indicating the study area
Source: COPINE, 2016: 10

Most of the land-use developments have some of the most severe, but mitigable environmental, physical, social and economic impacts on the host communities. Accordingly, communities hosting one or more of these land-use developments and with a cohabitation of a wide socio-demographic and all-ethnic group were selected. Consequently, an urban area Ile-Ife and a rural area Ayepe-Olode were purposively selected for this study (see Figure 2).

Ile-Ife lies between latitude 7º15ºN, 7º31ºN and longitude 4º43ºE, 4º45ºE. It is situated at the geographical centre of the Yoruba-speaking ethnic group, one of the largest ethnic groups in Africa (Olupona, 2011: 27). The city is approximately 200 km from Lagos, the country's commercial hub (Oduwaye, 2009: 399). Evidence of the urbanisation of Ile-Ife dates back to 500 AD (Olupona, 2011: 31). Currently, with the population growth, as well as the physical and political expansion, Ile-Ife is one of the major towns in Nigeria, extending over Ife Central and Ife East Local Government areas (see Figure 2), with a population of roughly 1.3 million (NBS, 2018: 12).

Ayepe-Olode, a rural and market settlement (see Figure 2), is on latitude 4° 15' N; 4° 20' N and longitude 7° 35' E; 7° 40' E. Its population, with roughly 4.5% annual growth, stands at 0.32 million and will likely be approximately 0.5 million by 2022 (NPC, 2016). Many of the residents are traders and farmers who cultivate perennial farm produce such as yam, cassava, maize, orange, kola, cocoa and vegetables, among others. In addition, residents of this settlement also engage in palm oil and cassava processing. As a rural area, Olode has a linear settlement pattern with houses built along the major streets and popular river Ere, which is the headwater stream in the settlement. It should be noted that the selected settlements are typical examples of a Nigerian urban centre and rural setting, respectively. Both are Yoruba ethnic-dominant settlements. This helps control the ethnic majority in the final analysis.

4. METHODOLOGY

This study examines constraints to PP and analyses whether specific socio-demographic groups are hindered more by these constraints. Using a qualitative research design, a structured questionnaire survey set three constructs with 15 measures on the variables of constraint extracted from the SEM. To test for the conceptual variance of impact among the constraint variables, factor analysis was used to reduce these measured variables to smaller factors (Rossoni, Engelbert & Bellegard, 2016: 201). The likelihood of being hindered as against the residents' socio-demographic characteristics was determined using the logistics regression (Wooldridge, 2002: 99).

4.1 Sampling size and methods

A systematic random sampling technique was adopted in the selection of research participants. In Ayepe-Olode, a total of 2 519 buildings were identified. One out of every ten buildings (10%) along the major streets and the river Ere was selected after the first house had been selected randomly. A total of 221 buildings were sampled in Ayepe-Olode. In Ile-Ife, a multi-stage sampling technique was used. A previous study stratified communities in Ile-Ife into low-, medium- and high-density (Badiora, 2012: 47). Hence, the simple random sampling technique was used to select one locality from each of the above density areas. From the selected areas, a total of 3 097 buildings were identified, comprising 1 017, 1 586, and 394 building units, respectively. The systematic random sampling technique was adopted in selecting one out of every ten buildings (10%). A total of 308 buildings were sampled in Ile-Ife.

4.2 Data collection

The authors and survey assistants administered a face-to-face questionnaire from January 2016 to April 2016. Questionnaires were administered on the head of the household (s/he is expected to represent his/her household on matters of public decision-making) or his/her representative. A section on the respondent's profile obtained socio-demographic information on gender, age, education qualification, average monthly income; tenure of residency; place of residence, and ethnicity. Based on the SEM, constructs on PP constraints included individual factors that measured perception of land-use planning; awareness of land-use planning; personal safety concerns and commitment towards the community; community factors that measured community cohesion; place attachment; community leadership and community organisation and government factors that measured perception towards town-planning services; quality of town-planners' contacts; satisfaction with town-planning services; government policies; interagency/departmental collaboration, and ICT. Using the Nigerian land-use planning process (see Table 1), the level of citizens' involvement was measured at the seven stages requiring PP: issuance of notification; collection of information; analysis of information; formulation of alternative plans; publication of draft plan; notification of plan, and compliant.

The questionnaire was written in English (the official language of Nigeria). However, the researchers, through interpreters who had a good command of both the English language and the different local Nigerian dialects spoken by the different ethnic groups in the study area, made efforts to explain the constructs on the constraints variables to respondents in the appropriate mother tongue. This was to assist respondents to correctly respond to the questionnaire. Close-ended questions were preferred, in order to reduce the respondents' bias (Teddlie & Tashakkori, 2003: 232). This study upholds an avoidance of harm, confidentiality and informed consent throughout data collection.

4.3 Response rate

From the 529 questionnaires administered, 305 were properly completed and returned, representing a roughly 58% response rate. According to Baruch and Holtom (2008: 1153), average response rates

for studies at organisational level are 37.2%, and 52.7% at individual level.

4.4 Data analysis and interpretation of the findings

Data on the respondents' socio-demographic characteristics were analysed, using descriptive statistics. Regarding their level of participation, the seven stages of the planning process requiring PP were rated on a Likert scale (Leedy & Ormrod, 2014: 185). The following scale measurement was used regarding PPI where 1 = Very low (≥1.00 and ≤1.80); 2 = Low (≥1.81 and ≤2.60); 3 = Moderate (≥2.61 and ≤3.40); 4 = High (≥3.41 and ≤4.20), and 5 = Very high (≥4.21 and ≤5.00). For the analysis of internal reliability, the instrument is acceptable, as revealed by the Cronbach's *Alpha* value of 0.74 (Tavakol & Dennick, 2011: 54-55). Following the measures of participation level at different phases of PP, respondents were required to respond, in practice, with the 15 measures defining hindrances to PP. Based on SEM, a list was provided of reasons as to why people might not participate in public decision-making as often as they want to. For each reason, respondents were asked (after thorough explanation of each reason to the respondents in the appropriate mother tongue) to indicate by a "yes" or a "no" whether the reason hindered them from participating in the process, with 'yes' as the reason hinders the respondents and 'no' as does not hinder the respondents. Data from these measurements form the variables used in the factor analysis and logistic regression.

Table 2 shows the description and summary statistics of the explanatory variables used. A set of dummy variables was used to observe whether ethnic minorities and marginalised groups perceived more constraints to PP compared to their respective counterparts. The income variable was measured using a scale of 1 to 4. For ease of analysis, four income groups were identified, using the civil service income grade level. The first group consisted of respondents earning below the national minimum wage (₦18000/USD72, as at 2016). The low-income group were residents in grade levels 01 to 06. The middle-income earners were those in grade levels 07 to 12, while high-income earners were residents in levels 13 to17. The numerical monthly income of the groups was less than ₦18000/USD72; ₦18000-60000/USD72-240; ₦61000-150000/USD244-600 and above ₦150000/>USD600, respectively. The educational level variable was calculated, using a scale of 1 to 6: (1) None; (2) Primary; (2) Junior Secondary; (3) Senior Secondary; (4) Certificate in Education NCE/National Diploma OND; (5) Senior National Diploma HND/University degrees, and (6) Postgraduate degrees, with higher values in both income and education scales denoting higher levels.

To search for the supposed conceptual distinction between all independent variables, factor analysis with varimax rotation was performed (Osborne, 2015). This was used as an instrument to assess the study's importance and heterogeneity in PP and independent variables. The measured variables (independent and dependent) were subjected to a logistics regression model. The possibility of being excluded from PP was modelled as a function of the respondents' socio-demographic

Table 2: Description and summary statistics of variables used (sample size = 305)

S/N	Variable	Description	Mean	Min	Max
1	Age: Age group: 18-45 = 1	A dummy that equals one if respondent belonged to the 18-45 year group, and zero otherwise	0.54	0	1
2	Age: 66 and above = 1	A dummy that equals one if respondent belonged to the 65 and above year group, and zero otherwise	0.11	0	1
3	Education	Education level of respondent in a scale from 1-6, with higher value in scale denoting higher level of education	4.33	1	6
4	Ethnicity: Fulani = 1	A dummy that equals one if respondent was Fulani, and zero otherwise	0.04	0	1
5	Ethnicity: Hausa = 1	A dummy that equals one if respondent was Hausa, and zero otherwise	0.01	0	1
6	Ethnicity: Igbo = 1	A dummy that equals one if respondent was Igbo, and zero otherwise	0.02	0	1
7	Ethnicity: Others = 1	A dummy that equals one if respondent was from another ethnic group in Nigeria, and zero otherwise	0.06	0	1
8	Gender: female = 1	A dummy that equals one if respondent was female, and zero otherwise	0.55	0	1
9	Income	Income of respondent in a scale from 1-6, with higher value in scale denoting higher income	2.44	1	4
10	Residency: tenants = 1	A dummy that equals one if respondent was tenant, and zero otherwise	0.51	0	1
11	Location: rural area = 1	A dummy that equals one if respondent belonged to rural area, and zero otherwise	0.35	0	1
12	Residential area; high density = 1	A dummy that equals one if respondent belonged to high density zone, and zero otherwise	0.27	0	1
13	Residential area; med density = 1	A dummy that equals one if respondent belonged to low density zone, and zero otherwise	0.12	0	1
14	Residential area; low density = 1	A dummy that equals one if respondent belonged to medium density zone, and zero otherwise	0.45	0	1

Note: All factors (15 factors that respondents may perceive as constraints) examined were binary variable that equalled one if respondent perceived barrier by that particular factor, and zero otherwise. For age, age group 46-65 is the reference category; for ethnicity, Yoruba is the reference category, and for residential area, the suburban is reference category.

characteristics. To analyse whether ethnic minorities and marginalised groups experienced more hindrances than their counterparts, dummies were formed for variables representing ethnic minorities and marginalised groups and included in the model. The variances in residential neighbourhood (high-, medium- and low-density) may also lead to variations in PP. Accordingly, geographic areas were controlled by including geographic area dummies at a spatial level. A logistic regression was used since the dependent variable is binary (1 if they felt hindered by any of the listed factors and zero otherwise).

For two explanations, the Logistic Regression (LR) was chosen over an Ordinary Least Square (OLS). First, the LR guarantees that the range of possibilities is between zero and one. The OLS, on the other hand, does not guarantee that the calculation of likelihood is between zero and one. Secondly, since the dependent variable is binary, the OLS' constant variance presumption is overruled, while the LR permits it (Wooldridge, 2002: 99). The LR equation is specified in equation (3) where *P* (constrained) is the probability that respondents perceived being constrained by specific SEM factors, X is a vector of explanatory variables (socio-demographic characteristics: ethnicity, residency, age, gender, residential location, income, and education; and residential area dummies), and B is a vector of parameters to be estimated.

5. RESULTS

The tables, from which data are summarised, emanated from the conducted questionnaire carried out in 2016, unless otherwise stated.

5.1 Residents' level of participation in land-use planning

With an average PPI of 2.50, findings in Table 3 show a low level of PP by participants overall. When each phase was considered separately, findings show high PP in the early phases of the land-use planning process. For instance, PP at the issuance of notification was high (PPI = 3.99), but PP at the collection of data stage were moderate (PPI = 2.99). With PPI ratings ≥1.81 and ≤2.60, low levels of PP were recorded in the analysis of data phase, the formulation of alternative plans; the publication of draft plan; the notification of plan, and the compliant phases.

From the summary presented in Table 3, there seems to be enthusiasm among the respondents at the beginning of the land-use planning process. However, this eagerness gradually diminishes as phases in the land-use planning process continue from the early to the later stages. As discussed earlier, several micro and macro factors can cause this pattern. Some of these factors are analysed in the next section, particularly as they relate to ethnic minorities and marginalised groups.

5.2 Factors influencing residents' participation in land-use planning

PP was ascertained by assessing the dimensions of constraint factors. The study yielded a solution of four variables explaining 66.42% of the variance (see Table 4). In factor one 'government' (explaining 12.15% of the total variance), the variables with high loadings are perception of town-planning services; quality of town planners' contacts; satisfaction with planning services; government policies; interagency/-departmental collaboration and effective media and ICT. Factor two 'individual' explained 18.02% of the total variance and variables with high loadings are perception towards land-use planning, awareness about land-use planning and individual commitment towards the community. Community cohesion, place attachment, community leadership and community organisation loaded onto factor three 'community'. This factor explained 14.19% of the total variance in PP. Explaining 22.05% of the total variance in PP, factor four 'safety concerns' has two variables with high loadings, personal safety concerns and concerns for the safety of family, friends and neighbourhood.

Findings show that all factors were statistically significant at either $p<0.05$ or $p<0.01$. Thus, this confirms the assumption of this study as all factors (see the literature review) have a significant influence on public participation in land-use decision-making in the study area. Interestingly, as expounded in the literature, three-factor solution is expected. However, 'safety concerns' variables, which are expected to form items under 'individual' factors, did appear to form their own distinct factor. This shows the importance of concerns for safety if people are to actively participate in land-use planning in the study area. The factor analysis is developed into a conceptual framework of constraints to PP in Nigeria (see Figure 3). Interestingly, this framework is somewhat similar to that of the SEM.

Table 3: Residents' level of participation in the land-use planning process

Land-use planning process phase requiring PP (N= 305) (1 = Very low (≥1.00 and ≤1.80); 2 = Low (≥1.81 and ≤2.60); 3 = Moderate (≥2.61 and ≤3.40); 4 = High (≥3.41 and ≤4.20), and 5 = Very high (≥4.21 and ≤5.00)	PPI	MD
Issuance of notification	3.99	+1.49
Collection of information	2.99	+0.49
Analysis of information	2.50	+0.00
Formulation of alternative plans	2.29	-0.21
Publication of draft plan	1.94	-0.56
Notification of plan	1.90	-0.60
Compliant	1.86	-0.64
Average PPI	2.50	

Note: MD = Mean deviation was used in this research to describe the extent to which values were away from the average PPI.

While SEM identified at least three contexts that may influence PP (see section 2.3), the current study model considers four factors, namely community, individual, government and safety concerns. It is interesting to note that both models consist of similar variables, except for concerns for safety items. In summary, this study confirms the SEM model that individual, community, and institutional factors influence PP.

Having established this, the probability that marginalised groups are being affected more by these factors was examined. A set of 15 influencing variables (which the factor analysis has grouped into four, namely government, individual, community and safety concerns) are examined using logistic regression. The results are presented in the next subsection.

Table 4: Factor analysis differentiating public participation

Factors	Variable	Variable loading	P-value	Eigen values	Explained variance %
1. Government	Perception of town-planning services*	.777	.02	4.01	12.16
	Quality of town planners contacts**	.603	.00		
	Satisfaction with town-planning services**	.778	.00		
	Government policies*	.464	.03		
	Interagency/-departmental collaboration**	.655	.00		
	Effective media and ICT**	.516	.00		
2. Individual	Perception of land-use development**	.988	.00	3.32	18.02
	Awareness of the land-use plan**	.567	.00		
	Commitment to community*	.604	.04		
3. Community	Community cohesion*	.767	.01	2.09	14.19
	Place attachment**	.663	.00		
	Community leadership**	.692	.00		
	Community organisation*	.690	.01		
4. Safety concerns	Personal safety concerns*	.727	.02	3.13	22.05
	Concerns for the safety of family and friends**	.678	.00		
	*p<0.05; **p<0.01 **66.42%**				

5.3 Logit estimates for constraints of socio-demographic groups to public participation

Table 5 presents the summary of the estimation intended for respective hindrance equation, presented in the column heading (positive hindrance equation shows high level of constraint, while negative hindrance equation shows low level of constraint). All constant equations were statistically significant, as shown by Wald Chi2.

For the ethnicity variable, four parameters were used to check whether ethnic minorities observed more hindrances to PP than the natives. The 'other ethnic' group was positively significant in five hindrance equations (satisfaction with town-planning services, awareness of the land-use plan, place attachment, personal safety concerns, and concerns for others' safety), and negatively significant in five hindrance equations (perception of town-planning services, quality of town planners' contacts, government policies, interagency collaboration, perception of land-use development) at a 10% level or better. The Hausa dummy was positively significant in

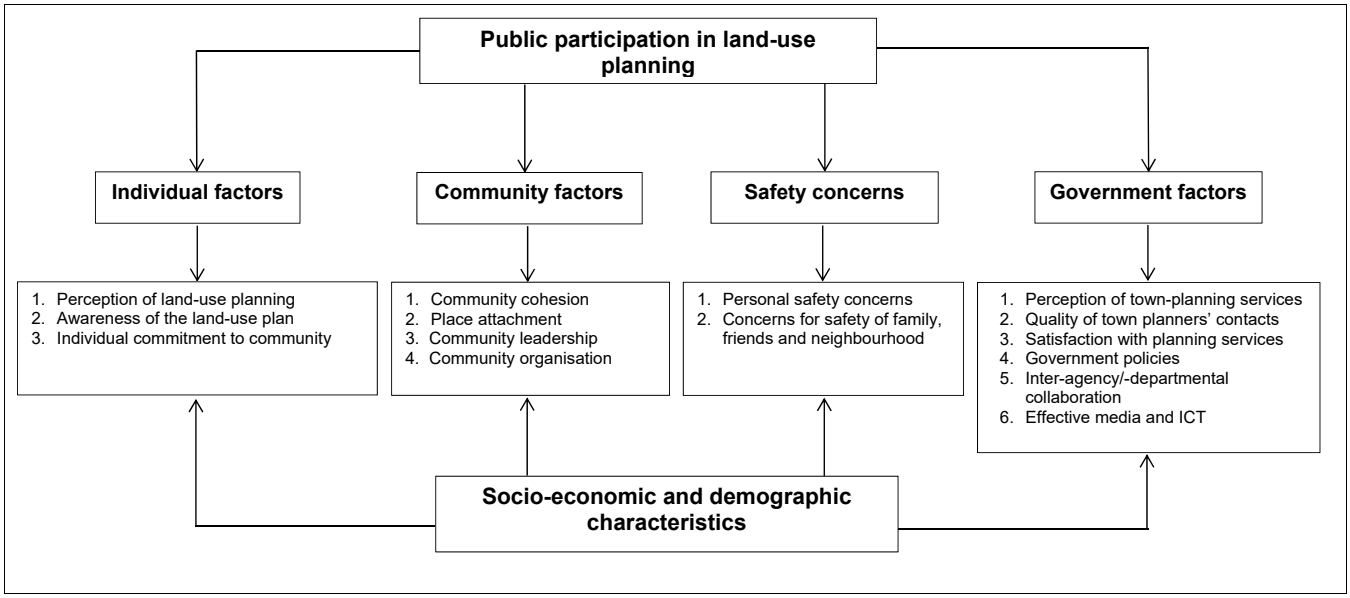

Figure 3: Conceptual model for public participation constraints

six hindrance equations (awareness about the land-use plan, community cohesion, place attachment, community leadership and concern for safety of family and friends) at a 10% level or better. The dummy for Igbo was positively significant in seven hindrance equations (perception of land-use planning, awareness about the land-use plan, individual commitment towards the community, community cohesion, community leadership, community organisation and concerns for personal safety). The Fulani dummy was positively significant in eight hindrance equations (satisfaction with town-planning services, effective media and ICT, perception towards community development, awareness of the land-use plan, individual commitment to the community, community leadership, personal safety concerns and concerns for the safety of family and friends) at a 10% level or better.

The rural resident dummy was positively significant in eight hindrance equations (perception of town-planning services, satisfaction with town-planning services; government policies, awareness of the land-use plan, individual commitment towards the community, community cohesion, place attachment), and negatively significant in three hindrance equations (quality of town planners' contacts, effective media and ICT and interdepartmental/-agency collaboration) at a 10% level or better. The female dummy was positively significant in seven hindrance equations (quality of town planners' contacts, government policies, awareness of the land-use plan, individual commitment towards the community, community leadership, personal safety concerns and concerns for the safety of family members), and negatively significant in four hindrance equations (perception towards town-planning services, effective media and information technology, place attachment, and interagency collaboration) at a 10% level or better.

The dummy for age group 18 to 45 years was positively significant in eight hindrance equations (perception of town-planning services, satisfaction with town-planning services; government policies, awareness of the land-use plan, individual commitment to the community, community leadership, personal safety concerns and safety of family and friends), and negatively significant in four hindrance equations (quality of town planners' contacts, effective media and ICT, place attachment, and interagency collaboration) at a 10% level or better. The dummy for age group 66 and above was positively significant in ten hindrance equations (perception of planning services, quality of town planners' contacts, satisfaction with planning services, government policies, perception of land-use planning, awareness of the land-use plan, individual commitment to the community, community cohesion, community leadership, concerns for the safety of family and friends), and negatively significant in three hindrance equations (effective media and ICT, place attachment, and interdepartmental/-agency collaboration).

The income variable appeared to be positively significant in eight hindrance equations (perception of town-planning services, satisfaction with town-planning services, effective media and ICT, perception of land-use development, awareness of the land-use plan, community leadership, personal safety concerns and concerns for the safety of family and friends), and negatively significant in two hindrance equations (place attachment and community organisation). Education was positively significant in seven hindrance equations (perception of town-planning services, satisfaction with town-planning services; perception of land-use development, awareness of the land-use plan, community leadership, personal safety concerns and concerns for the safety of family and friends), and negatively significant in two hindrance equations (place attachment and community organisation). The tenants dummy was positively significant in eight hindrance equations (government policies, community cohesion, place attachment, awareness of the land-use plan, individual commitment to the community, community leadership, personal safety concerns and concerns for the safety of family and friends), and negatively significant in six hindrance equations (quality of town planners' contacts, effective media and ICT, community organisation, community leadership, place attachment, and interagency collaboration) at a 10% level or better.

For high-density areas dummy, eight hindrance equations (perception of town-planning services, quality of town planners' contacts, satisfaction with town-planning services; perception of land-use development, awareness of the land-use plan, individual commitment to the community, place attachment, personal safety concerns and concerns for the safety of family and friends) were positively significant, while only one hindrance equation (community organisation) was negative. The medium-density variable appeared to be positively significant in eight hindrance equations (effective media and ICT, perception of land-use development, awareness of the land-use plan, individual commitment to the community, community cohesion, community organisation, personal safety concerns and concerns for the safety of family members), while low-density dummy was positively significant in six hindrance equations (perception towards town-planning services, satisfaction with town-planning services, awareness of the land-use plan, individual commitment to the community, personal safety concerns and concerns for the safety of family members), and negatively significant in four hindrance equations (quality of town planners' contacts, effective media and ICT, and place attachment) at a 10% level or better. It must be noted that, aside awareness about the land-use plan, concerns for safety appeared to be positively significant in the hindrance equations of most of the socio-demographic variables observed.

Table 5: Probability of being hindered in land-use planning

S/N	Variables	Perception of town-planning services	Quality of town planners' contacts	Satisfaction with town-planning services	Government policies	Interagency collaboration	Effective media and ICT	Perception of land-use planning	Awareness of the land-use plan
1	Ethnicity: Others = 1	-0.234*	-0.212**	0.398*	-0.350*	-0.274*	0.274*	-0.942***	0.698**
		(0.103)	(0.123)	(0.113)	(0.407)	(0.333)	(0.333)	(0.142)	(0.159)
2	Ethnicity: Hausa = 1	0.244	-0.244*	-0.735*	-0.180	0.155***	0.155***	0.444***	0.755**
		(0.318)	(0.318)	(0.320)	(0.657)	(0.010)	(0.010)	(0.021)	(0.099)
3	Ethnicity: Igbo = 1	--0.976	--0.976	0.544*	-0.588	-0.730	-0.730	0.063**	0.369**
		(0.332)	(0.332)	(0.324)	(0.677)	(0.036)	(0.036)	(0.025)	(0.055)
4	Ethnicity: Fulani = 1	0.297	0.297	0.034**	-0.556	0.419**	0.419**	-0.455	0.080**
		(0.206)	(0.206)	(0.184)	(0.242)	(0.081)	(0.081)	(0.064)	(0.134)
5	Age: Age group: 18-45 = 1	0.059**	-0.089**	0.023**	0.255*	-0.274*	-0.274*	0.942	0.698***
		(0.028)	(0.028)	(0.083)	(0.163)	(0.333)	(0.333)	(0.142)	(0.159)
6	Age: 66 and above = 1	0.121**	0.181**	0.688**	0.167**	-0.089**	-0.023***	0.255*	0.255*
		(0.081)	(0.081)	(0.064)	(0.134)	(0.028)	(0.083)	(0.163)	(0.153)
7	Education	0.283**	0.283	0.678**	0.590	0.181	0.688	0.167**	0.167*
		(0.090)	(0.090)	(0.088)	(0.166)	(0.081)	(0.064)	(0.134)	(0.134)
8	Gender: female = 1	-0.274*	0.274*	0.942	0.698***	-0.089**	-0.023***	0.255	0.255
		(0.333)	(0.333)	(0.142)	(0.159)	(0.028)	(0.083)	(0.163)	(0.153)
9	Residency: tenants = 1	0.081	0.064	0.688	0.167**	0.244	-0.244***	0.735*	0.132**
		(0.283)	(0.678)	(0.064)	(0.134)	(0.318)	(0.318)	(0.320)	(0.255)
10	Income	0.155***	0.155	0.444***	0.755	0.181	0.688**	0.167**	0.167*
		(0.010)	(0.010)	(0.021)	(0.099)	(0.081)	(0.064)	(0.134)	(0.134)
11	Location: rural area = 1	0.730**	-0.730**	0.063**	0.069*	-0.283**	-0.678**	0.590	0.490***
		(0.036)	(0.036)	(0.025)	(0.055)	(0.090)	(0.088)	(0.166)	(0.177)
12	Residential area: high density = 1	0.219**	0.619**	0.455**	0.080	0.081	0.064	0.134	0.081
		(0.433)	(0.313)	(0.142)	(0.159)	(0.283)	(0.678)	(0.590)	(0.283)
13	Residential area: medium density = 1	0.066	0.283	-0.678**	0.590	0.184	0.242**	0.244**	0.184*
		(0.132)	(0.090)	(0.088)	(0.166)	(0.023)	(0.255)	(0.255)	(0.023)
14	Residential area: low density = 1	0.255*	-0.274*	0.942***	0.698	0.083	-0.163**	0.153	0.083**
		(0.129)	(0.333)	(0.142)	(0.159)	0.688	(0.167)	(0.167)	(0.688)
	Constant	0.151	0.398*	-0.350	0.274*	0.274*	0.419**	-0.455	0.080
		(0.306)	(0.113)	(0.407)	(0.333)	(0.333)	(0.333)	(0.142)	(0.159)
	Wald Chi2	155.77	161.89	201.23	198.46	123.44	179.34	146.99	198.64
	Prob>Chi2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Pseudo R2	0.031	0.022	0.123	0.045	0.092	0.087	0.124	0.033

Table 5: Probability of being hindered in land-use planning

S/N	Variables	Individual commitment to community	Community cohesion	Place attachment	Community leadership	Community organisation	Personal safety concerns	Concerns for the safety of family and friends
1	Ethnicity: Others = 1	0.023	0.255*	0.274*	0.274*	0.206**	0.184	0.242*
		(0.083)	(0.163)	(0.333)	(0.333)	(0.089)	(0.023)	(0.255)
2	Ethnicity: Hausa = 1	0.688	0.167**	0.089**	0.023***	0.028	0.083***	0.163
		(0.064)	(0.134)	(0.028)	(0.083)	(0.181)	(0.688)	(0.167)
3	Ethnicity: Igbo = 1	0.678**	0.590***	0.181	0.678**	0.234**	-0.064**	0.134***
		(0.088)	(0.166)	(0.081)	(0.064)	(0.283)	(0.678)	(0.590)
4	Ethnicity: Fulani = 1	0.942***	-0.698***	0.089**	0.023***	-0.184*	0.242*	0.244**
		(0.142)	(0.159)	(0.028)	(0.083)	(0.023)	(0.255)	(0.255)
5	Age: Age group: 18-45 = 1	0.444***	0.755	-0.181**	0.688**	0.083	-0.163**	0.153**
		(0.021)	(0.099)	(0.081)	(0.064)	(0.688)	(0.167)	(0.167)
6	Age; 66 and above = 1	0.063*	0.069**	0.283**	0.678**	0.064**	0.134	0.134**
		(0.025)	(0.055)	(0.090)	(0.088)	(0.678)	(0.590)	(0.490)
7	Education	0.455	0.080	-0.081**	0.064**	-0.088**	0.166**	0.177**
		(0.142)	(0.159)	(0.283)	(0.678)	(0.184)	(0.242)	(0.244)
8	Gender: female = 1	0.678	0.590	-0.184**	0.242	0.023	0.255*	0.255*
		(0.088)	(0.166)	(0.023)	(0.255)	(0.083)***	(0.163)	(0.153)
9	Residency: tenant = 1	0.081**	0.064	-0.134***	0.398*	-0.350	0.274*	0.173**
		(0.283)	(0.678)	(0.590)	(0.113)	(0.407)	(0.333)	(0.147)
10	Income	0.942	0.698	-0.274*	0.374*	-0.942***	0.698***	0.089**
		(0.142)	(0.159)	(0.333)	(0.313)	(0.142)	(0.159)	(0.028)
11	Location: rural area = 1	0.163	0.688	0.167	-0.167*	0.151	0.666***	2.871***
		(0.167)	(0.064)	(0.134)	(0.134)	(0.306)	(0.124)	(0.369)
12	Residential area: high density = 1	0.283**	0.678	0.590	0.089	-0.023***	0.184**	0.242*
		(0.090)	(0.088)	(0.166)	(0.028)	(0.083)	(0.023)	(0.255)
13	Residential area: medium density = 1	0.274*	0.942***	-0.698***	0.181	0.688**	0.083***	0.163**
		(0.333)	(0.142)	(0.159)	(0.081)	(0.064)	(0.688)	(0.167)
14	Residential area: low density = 1	0.155***	0.444	-0.755**	0.283	0.678	0.064**	0.134***
		(0.010)	(0.021)	(0.099)	(0.090)	(0.088)	(0.678)	(0.590)
	Constant	0.228	0.528)	0.483	0.163	0.333	0.641	0.142
		(0.121)	(0.181)	(0.688)	(0.167)	(0.089)	(0.023)	(0.255)
	Wald Chi2	205.09	131.99	166.23	172.22	211.07	178.08	149.22
	Prob>Chi2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Pseudo R2	0.021	0.028	0.041	0.201	0.193	0.317	0.144

Note: Logistic regression estimates. Dependent variable is 'being hindered in public participation' as defined by column heading. Robust standard errors are shown in parentheses.

***, **, and * denote significant at the = 0.01, 0.05, and 0.1 levels, respectively. Furthermore, Nigeria has roughly 250 ethnic groups. Having considered the prominent ones, 'Others' was used to denote the remaining ethnic groups.

5.4 Robustness of the findings

For the robustness of the results, the 15 influencing variables are grouped into four broad categories by factor analysis: government, community, individual and safety concerns factors (see Table 4) and were used to re-estimate the probability that the respondents participate in land-use planning. Table 6 presents the summary.

Amid the ethnic groups, the Hausas felt hindered by community, individual and safety concerns factors, although less hindered by the individual factors as compared to the other two factors. The Igbos felt hindered by community factors when compared to the Yorubas, but they felt less hindered by government factors. The Fulani felt less hindered by individual factors compared with community and safety concerns factor. Findings show that rural residents are faced with government and community hindrances compared to their counterparts in urban areas. The community factors and safety concerns constraints limited female respondents compared to their male counterparts. Residents aged 18 to 45 years had community, government and individual constraints to contend with if they were to participate in the land-use planning process in their community. Residents aged 66 years and above mentioned that individual and safety concerns factors mostly hinder them and they perceived that they were less hindered by community hindrances.

Results show that tenants felt hindered by community, individual and safety concerns factors, although less hindered by the safety concerns factors as compared to the other two factors. Individuals with higher incomes were less hindered by safety concerns factors unlike community factor, whereas low-income individuals were hindered more by government factors. Furthermore, highly educated residents were not hindered as much by community and individual factors compared to government and safety concerns factors. Residents of high- and low-density residential areas felt more hindered by government factors. Both community and safety concerns factors hindered respondents of medium-density residential areas. However, they felt more likely to be hindered by community factors compared to safety concerns factors. All these findings have different policy implications as discussed in the next section.

Table 6: Probability of being hindered in land-use planning – Robustness of findings

S/N	Variables	Government factors	Community factors	Individual factors	Safety concerns factors
1	Ethnicity: Others = 1	-0.212	0.398*	-0.350	0.341*
		(0.123)	(0.113)	(0.407)	(0.317)
2	Ethnicity: Hausa = 1	0.244	0.735*	-0.180	0.260**
		(0.318)	(0.320)	(0.657)	(0.647)
3	Ethnicity: Igbo = 1	--0.976	0.544*	-0.588	0.498
		(0.332)	(0.324)	(0.677)	(0.766)
4	Ethnicity: Fulani = 1	0.297	0.034**	-0.556**	0.556**
		(0.206)	(0.184)	(0.242)	(0.244)
5	Age: Age group: 18-45 = 1	0.089**	0.023**	0.255*	0.255
		(0.028)	(0.083)***	(0.163)	(0.153)
6	Age: 66 and above = 1	0.181**	0.688	0.167	-0.167*
		(0.081)	(0.064)	(0.134)	(0.134)
7	Education	0.283**	-0.678**	-0.590***	0.490***
		(0.090)	(0.088)	(0.166)	(0.177)
8	Gender: female = 1	0.274	0.942***	-0.698	-0.628***
		(0.333)	(0.142)	(0.159)	(0.169)
9	Residency: tenant = 1	0.283	0.638**	0.590*	-0.189*
		(0.190)	(0.066)	(0.166)	(0.024)
10	Income	0.155	0.444***	0.755	-0.095**
		(0.010)	(0.021)	(0.099)	(0.038)
11	Location: rural area = 1	-0.730*	0.063**	0.069	0.059
		(0.036)	(0.025)	(0.055)	(0.045)
12	Residential area: high density = 1	0.419**	-0.455	0.080	0.090
		(0.137)	(0.120)	(0.213)	(0.213)
13	Residential area: medium density = 1	0.066	0.778**	-0.067	-0.067*
		(0.132)	(0.145)	(0.261)	(0.251)
14	Residential area: low density = 1	0.255*	0.434***	-0.122	-0.112
		(0.129)	(0.121)	(0.196)	(0.196)
	Constant	0.151	0.666***	2.871***	2.843***
		(0.306)	(0.124)	(0.369)	(0.736)
	Wald Chi2	105.77	232.04	146.07	156.67
	Prob.>Chi2	0.000	0.000	0.000	0.000
	Pseudo R2	0.031	0.071	0.079	0.077
	Observations	305	305	305	305

Note: Logistic regression estimates. Dependent variable is 'being hindered in public participation'. Robust standard errors are shown in parentheses.

***, **, and * denote significant at the =0.01, 0.05, and 0.1 levels, respectively. Nigeria has roughly 250 ethnic groups. Having considered the prominent ones, 'Others' was used to denote further ethnic groups.

6. DISCUSSION AND POLICY IMPLICATIONS

The findings show evidence of PP in land-use planning. However, this was very low, as the PP rate reduces as planning process phases progress from the early to the later stages. Results are thus in line with previous studies that upheld low PP in developing countries (Nguyen *et al.*, 2015:41; Muse, 2014: 115) and Nigeria, in particular (Adedoyin, 2014: 35). The study is also in line with Hatley (2013), Neidhart (2013) and Magee (2012) who indicated low levels of PP in developed countries. Findings of this study seem inconsistent and thus contradict Oloyede (2010: 190), who argued that the military government was the cause of the

low PP in Nigeria, and Lemanski (2017: 45) who posited that the democratic government increases the PP rate. The present study argues that neither the military rule nor the democratic government decreases or increases PP. Rather, forces outside the system of governance are most likely to be the root of the low PP in Nigeria. There is, therefore, the need to constantly identify, update and scrutinise these factors and vigorously pursue PP in future land-use decision-making processes.

The statistical significance of SEM elements (individual, community, organisational and government factors) in PP, as shown in this study, corresponds with previous research findings. For instance, Safari and Ziyari (2013) found that individual, organisational and state elements influence citizen participation in managing urban affairs in Salmas City. Similarly, Duan, Liu, Wang and Guo (2020: 8) show a positive relationship between community participation and governmental behaviour. Similarly, Mongkolnchaiarunya (2005: 32) argues that the government factors boost the public's willingness to participate in the land decision-making process. Furthermore, Akamani and Hall (2015: 7) further show that community organisation structure has a significant impact on PP. Shamaia, Abyab and Ebrahimic's (2015) study shows that variables of community cohesion and place attachment influence citizen participation.

Findings show that marginalised groups had more constraints to PP. For instance, the more the gender varies, the more the constraints to PP adjust in favour of male respondents. The female gender is generally more hindered in PP than its male counterpart. This result was consistent with the studies of Mlambo and Kapingura (2019: 170), Shamaia *et al.* (2015: 409), MorhNor, AbdulGapor, AbuBakar and Harun (2011: 2), Agbalajobi (2010: 77), Fitzgerald (2013: 461), as well as Roth and Saunders (2019: 562), which confirmed the low PP of females. The reasons for the low PP of females in Nigeria were the community and safety constraints, as they did not feel equal to the males in Nigerian communities. The cultural roles of women in the community set-up also limit their PP in land-use planning. This caused them to experience political alienation, making them reluctant to participate in public policy. Furthermore, the more the age varies, the more the constraints to PP change in favour of older respondents. As there are differences in the respondents' PP rate according to age groups, the PP among the age group 18 to 45 years was low. This was consistent with the studies of Mannarini, Legittimo and Talò (2008: 101), UNDP (2012: 12), Pyeatt and Yanus (2018: 191), and Homana (2018: 51), which confirmed the low PP of young people. The reason for the low PP of the 18 to 45 year-old category in Nigeria was due to governance factors, as they viewed the people in government ineffective within society. In addition, individual variables were keys as they did not have PP orientation, and did not care about public policy activities.

The more the income varies, the more the constraints to PP adjust in favour of the high-income respondents. Moreover, the PP of the low-income group (18000 to 60000 Naira/USD72-240) was low. This could be problematic, because this group consisted of the majority of the population in Nigeria. This was consistent with the studies of Brady, Verba and Schlozman (1995: 281), Lawless and Fox (2001: 370), as well as Finkel, Horowitz and Rojo-Mendoza (2012: 61) that conclude that wealth, welfare and money affect the PP process. The reasons for the low PP of 18,000-60,000 Naira/USD72-240 income category in Nigeria was due to government factors, as they could not obtain high-quality public services. Moreover, the lack of fair distribution of resources and the concentration of wealth in the hands of a few businessmen and politicians made them feel marginalised. This made them reluctant to participate in public policy. The more the ethnic affiliation and location vary, the more the constraints to PP change in favour of the dominant ethnic group in both the study area and the urban area. In addition, the PP of the ethnic minority's category (Hausa, Fulani, Igbo and others) and rural residents was low. This was consistent with the studies of MorhNor *et al.* (2011:7), as well as Pyeatt and Yanus (2018: 187) that emphasised that the difference in ethnics, districts and regional affiliation affected PP. The reason for the low PP of ethnic minorities in the study area was community factors, as they felt marginalised within the study area society. This, in turn, made them reluctant to participate in land-use decision-making. For rural residents, it was government factors as they felt that government policies lack fair distribution and concentration of amenities in urban centres.

In order to eradicate the perceived limitation faced by these marginalised groups, community leadership and urban planning organisations must make every effort to be friendlier towards people with diverse socio-demographic backgrounds. Even though most of the public hearings on physical developmental projects have adopted 'people variety policies', these are frequently more figurative than practical. Thus, if our societies have an improved service for the poor and ethnic minorities, values of inclusion must saturate the society. Our community leaders and workers in urban planning agencies must be educated to hold the principle that ethnic minorities and other marginalised groups are worthy of receiving equal respect and dealings as other well-off and native residents. Government and community leaders must also begin to channel development towards the rural areas and create statutory roles and spaces for women and youth to function in the political process.

Among the SEM factors observed, a concern for safety was common to most of the hindrance equations. It is thus evident that ethnic minorities and marginalised groups were concerned about the conceivable violence while engaging in PP. Findings show that ethnic minorities, older people and women were more constrained by concerns for safety. Such results ask for safety interventions that are profound to

ethnic minorities and marginalised group characteristics, needs and adopt a complete approach to safety. Governments can help overcome these constraints by enhancing the feeling of safety of residents by strengthening the current law execution programmes, together with extremely evident patrol cars, facility investigation, and planned display of emergency lines and assignment of telephones in receiving and replying to distress calls. Similarly, the community may consider constriction of security around neighbourhoods, not only to increase PP, but also to curtail probable costs of safety-related litigations.

Another common factor in most of the hindrance equations was the awareness of the land-use plan. This is in line with previous studies (Wu, Li & Chang, 2016: 41; Muse, 2014: 120; Suffian *et al*., 2012: 71), which have shown awareness to be one major factor in PP. Therefore, raising the awareness of the public to land-use events can promote PP. Respondents will learn about land-use events through media publications and by organising meetings and inviting town planners to conduct training for residents. At the same time, relevant departments should pay attention to the diverse channels for obtaining land-use information and the accuracy of the released information. Furthermore, results show that younger people and rural residents are likely to face awareness constraints, although younger people are expected to have better access to a great deal of information sources. This awareness limitation may be hinged on the fact that most of the advertised information on land-use proposal was shown in local outlets, including in daily newspapers, as opposed to the modern electronic media used by younger people. Besides, it is a common trend that older people are retired and have free time to read through newspapers (Fealy, McNamara, Treacy & Lyons, 2012: 93). On the contrary, as many young people are in the early phase of their career, they could have family commitments that call for longer working hours and not having the time to seek information outside their career (Koskinen, Salminen & Leino-Kilpi, 2014: 7). As a result, more or less of these restraints may perhaps be eradicated with advertising and the provision of significant information through various outlets. This awareness constraint can be made less relevant nowadays through information via social media or smart phone apps for mobile web users. Citizens and concerned parties have the opportunity to provide more information via several media types, including the press, TV news and programmes, radios, network, blogs, social media on the central message of public policies and expectations in terms of PP.

Findings show that many of the constraint factors remained negatively associated with income and education levels. In fact, an increase in income and education level causes people to be more economically empowered and, hence, less likely to encounter constraints in PP. Many of these constraints can be reduced by a decent income and education to some level. Pasek, Feldman, Romer and Jamieson (2008) found that positive education levels raise citizens' incentives, awareness, and aspiration to desire the kind of future they want through governance processes such as PP.

7. CONCLUSION

Using sample participants in Nigeria, this study used SEM to examine elements hampering PP from different socio-demographic groups in Nigeria. Findings show that there is a significant gap among respondents in terms of their ability to participate in land-use planning. The gap obviously prevailed in terms of ethnicity, residential location, gender, tenure of residency, and age groups. In other words, specific clusters in the Nigerian society, including ethnic minorities, rural inhabitants, females, leaseholders and the aged perceive more obstacles to PP than their counterparts. This study also confirms that this gap in PP was due to individual, community and institutional factors in Nigeria. The ineffectiveness of the local organisation performance, ineffectual awareness, concerns for safety, inequality in distribution of income, absence of good governance, the feeling of inequality with men in education and community leadership were due to the PP gap. Hence, socio-economic and institutional factors in the Nigerian society still favour some groups, although national and international constitutions ensure that all individuals be treated equally.

By exposing the role of the socio-demographic context, this study provides a new perspective on discussions regarding participatory land-use planning. Specifically, the need to promote PP that reflects all citizens rather than only a few, and the need to be aware of notable inequality expediters in accessing civic rights. This concern can only be addressed by the depoliticisation of participatory land-use planning. This study highlights the need for government as well as community and private investments to remove significant hindrances based on the earlier policy implications discussed and make PP available and attractive to all. In summary, residents will participate in the land-use planning process as soon as good governance is accessible and available to them; are fully aware of an issue at hand, and feel safe in their community.

8. LIMITATIONS AND FUTURE RESEARCH

There are limitations that come with the study. First, the investigation was conducted in 2016. PP rates and several socio-demographic factors such as the reviewed minimum wage may have changed by now. Nevertheless, the objective of this study was to explore the relationship between the respondents' characteristics and their opportunities to take part in public policy under some hindrances. Hence, these variations are relative and do not affect the nature of the relationship shown in this study. Using only a statistical analysis approach, this study presented a good sense of PP practice in Nigeria, consistent with public policy in literature, and appropriate to understanding the

perceived difficulties confronting ethnic minorities and marginalised groups in contributing to public policies, particularly on matters affecting their land resources. As there is no qualitative information available, the perspectives of this study from policymakers, land-use planning officials and other stakeholders such as civil societies and non-governmental organisations should be considered in future research. The study does not defend the completeness of the list of factors. For example, another key issue of perceived hindrance may be time. People may not have time to participate. Another factor may be free-riding perception, according to which one may feel that one's participation does not matter, because others already participate on one's behalf. There is, however, no indication of time or free-riding as perceived hindrances. Another problem is that, if one can perceive a factor as a hindrance, this does not necessarily mean that one does not participate in the land-use planning process. Future analysis would be more helpful if respondents are clearly identified into two groups: those who participate in land-use planning (despite perceived hindrances) and those who do not participate in land-use planning (because of perceived hindrances). Moreover, the study was not conducted throughout Nigeria, and the results cannot be generalised. Hence, a regional and/or nationwide study is recommended in future research.

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