

## FACTORS INFLUENCING RESIDENTIAL LOCATION CHOICES BY FEDERAL CIVIL SERVANTS IN ABUJA, NIGERIA.

**BELLO, Mustapha**

Department of Estate Management and Valuation  
School of Environmental Technology  
Federal University of Technology, Minna,  
Niger State, Nigeria.

**Ogunbanjo, Rukáyya Adeola (Ph.D)**

Department of Estate Management and Valuation  
School of Environmental Technology  
Federal University of Technology, Minna.  
Niger State, Nigeria.

### ABSTRACT

This study aims to identify the key factors influencing residential location choices for Federal Civil Servants in Abuja, Nigeria. Abuja's planned development and growing population create a unique context for housing decisions. The research will examine commute distances travelled by civil servants to their workplace in the study area and analyze the cost-preference relationship for commuting by civil servants in the study area. It will further explore the link between socio-economic characteristics and residential location factors. Finally, the study will determine the most significant factors driving residential location decisions among civil servants in the study area. This investigation can inform housing policy directed towards government employees and contribute to a deeper understanding of urban residential patterns in Abuja. Data for the study were collected through observations, and field survey, interviews and the administration of well-structured questionnaire administered to 357 respondents designed to gather information for the study. For the purpose of this research Simple random sampling was employed as it gives every worker in every parastatal in the study area within the grade level 8 – 17 an equal chance of being selected as a respondent to the questionnaire /interview. Analytical techniques such as mean scores, Pearson's moment correlation and multiple options approach were employed in analyzing the data collected from the study area. Statistical findings suggest that the selection of a particular location by Federal civil servants is positively linked to the financial implications of commuting. In addition, the decision-making processes regarding residential location are intricately linked to the socio-economic characteristics of civil servants. Proximity to the workplace emerges as the most pivotal factor influencing the accommodation choices of civil servants, with 200 respondents (24.2%) expressing its significance. Following closely is affordability, reflecting the civil servants ability to pay for their chosen accommodation, which accounts for (17.9%) of responses. Policy interventions, Urban planning, Data collection, Analysis and Implementation are the major recommendations which has contributed to a nuanced understanding of the challenges faced by Federal civil servants in Abuja and offers valuable recommendations for policymakers and developers to improve housing affordability, accessibility, and sustainable commuting options.

### Introduction

#### Background of the Study

The decision of people to rent or purchase houses is usually a huge financial commitment that, in most cases, continues to impact on the quality of life, access to opportunities and residential location decisions that shape cities in significant ways (Ubani, 2015). The concept of residential location choice assumes a prominent role when households plan their lives (Oladapo, Ojo, Ayoola & Kemiki, 2019). This is because residential housing is one of the basic needs of man and is viewed as an indicator of a person's standard of living and a major factor of economic

development (Olayiwola & Olaitan, 2019). According to Oladapo et al. (2019) residential location choices of households are significant to the urban development pattern of any city. Residential land use forms the majority of land use among competing uses as it provides shelter to mankind, and this makes residential location a major decision for households (Ayoola, Kemiki, Popoola & Oyedele, 2020).

Nigeria is undergoing an accelerated population shift from rural to urban areas (Bello & Nwosu, 2011). As the population of cities grows, demand for urban accommodation or residential location choice increases, thereby shaping the dynamic structure of the city. Ubani, Alaci and Udo (2017) explained that an urban area indicates an area with varied and spatially dispersed factors. These factors attract and influence residential location decisions. According to Sinniah, Shah, Vigar and TeguhAditjandra (2016) urban form characteristics such as density, settlement size, land-use mix, accessibility and local streets lay out, are cumulatively affecting attitudes towards residential location preferences and travel behavior alongside socio-demographic characteristics, housing location and job location.

Therefore, the more location factors an urban area has, the more varied the factors that influence residential location decision and socio-economic activities. To this end, it can be claimed that there is a mutual relationship between urban environment and households' residential preferences (Salihoglu & Türkoglu, 2019).

Ubani et al. (2017) opined that individuals or households have different factors that influence their decision to move or reside within an area. In some cases, choices made are based on neighborhoods and housing in itself. In that respect, the decision-making mechanism considers the relationship between elements such as housing availability, quality, dwelling types, characteristics of the neighborhood, and accessibility to various activities such as businesses, shopping and leisure (Olayiwola & Olaitan, 2019). However, there is a dearth of empirical studies that provide an in-depth understanding into the factors that influence federal civil servants in their choice of residential location in the city of Abuja. Thus, it has become imperative to assess these factors, considering the current housing trend in the city.

#### **Mission Statement**

This empirical research is one that attempts to assess the factors that influence residential location choices by federal civil servants in Abuja. The research will therefore reduce the knowledge gaps in areas that require consideration for the realization of the stated objectives. The findings and recommendations from this research will provide a database and a foundation for further research into this subject matter. It will be valuable to all levels of government and international administrations; it will be a useful tool for national policy reformation on residential location factors, and a guide to urban planners, civil servants, investors in real estate and academicians. The study will add to the existing body of literature on residential location choices within the country.

#### **Research Aim**

This research aims to assess the factors influencing residential location choices by federal civil servants in Abuja. To achieve this aim, the following research questions will be employed.

#### **Research Questions**

- i. What is the average distance traveled by civil servants to their workplace in the study area?
- ii. What is the relationship between location preferences and cost of commuting by civil servants in the study area?
- iii. What is the relationship between residential location factors and the socio-economic characteristics of civil servants in the study area?
- iv. What are the factors that determine residential location choices of civil servants across all cadres of income levels within the study area?

#### **Research Hypothesis**

H<sub>0</sub>: There is no significant difference in factors that determines residential location choices among cadres of civil servants in Abuja.

H<sub>0</sub>: There is significant difference in factors that determines residential location choices among cadres of civil servants in Abuja.

### Scope of the Study

The focus of this empirical research is on the factors influencing residential location choices by Federal civil servants and will encompass factors affecting residential location decisions, socio-economic characteristics of civil servants and the differences in factors of residential location choices across cadres of income levels. It will also consider Federal civil servants from fifteen (15) different Federal Government Parastatals and Agencies in Abuja, selected through purposive sampling strategy. The Federal civil servants will be classified into cadres based on their income levels; from level 8 – level 17.

### Description of the Study Area

Abuja, is located in the central part of Nigeria and lies between latitude 8° 35" and 9° 25" North of the Equator and longitude 6° 45" and 7° 45" East of the Greenwich Meridian with a total land area of 8000km<sup>2</sup> (Ajayi and Oyewobi, 2019). It was made the Federal Capital Territory (FCT) as the new administrative capital of the Federal Republic of Nigeria on the 12<sup>th</sup> of December, 1991. Its establishment was to mitigate the challenges experienced with Lagos as the then Federal Capital. Challenges that arose included over population, housing shortage, traffic congestion and overstressed infrastructure (Ajayi and Oyewobi, 2019).

The Abuja master plan visualized a population of 3.2 million inhabitants with a target year of 2000; however, this population target was surpassed as a result of a population boom before its development was accomplished. The city has witnessed an immense influx of people due to social, economic, and political factors (Muhammad *et al.* 2015). With less than 50% of the city's developmental plan completed, the population stands at an estimated figure of 5 million (NBS, 2017). Within the duration of twenty six (26) years, from (1991 to 2017), Abuja has grown from 387,671 people in 1991 to a projected population of 4,984,381 people in 2017 (NBS, 2017). Abuja is facing a severe housing shortage, compelled by the spontaneous relation of Federal employees without the provision of adequate accommodation and the constant influx of people since 1991 (Abubakar, 2014).

The Federal Capital Territory (FCT) is bordered to the North by Kaduna State; West by Niger State; East by Nasarawa state; and to the South by Kogi state respectively. Abuja is divided into six Area Councils namely; Bwari, Gwagwalada, Kuje, Kwali, Abaji and Abuja Municipal Area Council (AMAC) (Magaji & Adenyuma, 2020).

Abuja Municipal Area Council (AMAC) occupies an area of about 1,769km<sup>2</sup>, and it is located between latitude 8° 40' 12" North and longitude 7° 40' 24" East of the Greenwich. It shares boundaries with Kuje, Gwagwalada and Bwari Area Councils. The population of Abuja Municipal Area Council (AMAC) has been fast increasing as a result of both natural increase and migration, especially with its status as the seat of power of the Federal Capital Territory of Nigeria.

### Conceptual Framework

#### Factors Influencing Choice of Residential Location

Finding the perfect place to call home is a complex decision interwoven with diverse considerations. As a research student engrossed in urban studies, grasping these nuances becomes paramount. This literature review delves into the key factors shaping residential location choices, drawing upon recent researches and emphasizing the intricate interplay between individual needs and wider societal contexts. Several empirical studies have identified various factors which influence residential location choices by households. A household selects its residential location by assessing the housing features of each available dwelling unit and choosing the one which offers the highest possible utility (Oladapo *et al.* 2019). The study also substantiated the statement by stating that other than housing and commuting costs, there are multiple factors which influence household residential location decisions. Salihoglu and Türkoglu (2019) expressed that the key factors that influence residential location choices include housing prices, characteristics, attractiveness, accessibility, the transportation facilities of the neighborhood, social

relations, and attachment to neighborhood; however, demographic and socio-economic conditions, as well as changes in these conditions, are also drivers of residential location choice behavior of individuals and households. Another important issue Salihoglu and Türkoglu (2019) identified regarding accessibility is the perception of traffic congestion. The levels of dissatisfaction individuals and households have with traffic in the housing environment drives relocation. In Nigeria, several scholars have stressed that, factors such as socio-economic characteristics of a household, housing quality, availability of certain vital social services, and infrastructural facilities as the most important deciding factors in choosing where to reside (Amao & Ilesanmi, 2013; Olayiwola & Olaitan, 2019). Olatubara (1994) as cited in Olayiwola and Olaitan (2019) identified vacancy, movement costs and income levels of households making the residential location decision as factors that would decide residential location choice. Udo, Nwojo and Akpan (2020) noted that there are five (5) groups of factors that may influence household's choice of residential location, which are accessibility (to city center (CBD), communication services etc.); physical characteristics of the neighborhood (material condition of the streets and sidewalks, layout, aesthetics); services and facilities (quality and accessibility); social environment (socio-economic, ethnic and demographic composition, friends and friendliness) and individual site and dwelling characteristics (costs, housing size, etc.). These categories are rated among the most significant factors when choosing a residential location. Ubani (2015) stated that household location decisions are influenced by a variety of factors. These are discussed below:

**i. Socio-Economic and Ethnic Determinants**

One's socio-economic background and ethnicity significantly influence residential choices (Musterd, Andersson, & Galster 2019). Income levels profoundly impact housing affordability, often restricting individuals to specific neighborhoods (Freeman, & Schuetz, 2017). As Rugh & Massey (2010) observe, "housing affordability challenges disproportionately burden low-income households and racial minorities," leading to spatial segregation and perpetuating social inequalities (Massey & Denton, 2015). Ethnic preferences also play a role, with individuals often gravitating towards areas with similar cultural backgrounds for feelings of belonging and community (Alba & Nee, 2011). However, this clustering can contribute to residential segregation, highlighting the complex interplay between individual desires and broader societal structures.

**ii. Employment and Residential Location**

Wu (2010) also stated that safety and proximity to the city, proximity to workplace, public transportation, sense of safety, medical and health facilities, and educational facilities influence residence location of households. Yan *et al.* (2022) documented that access to certain employment sub-centers, measured in terms of generalized cost, is an essential determinant of households' residential location decisions. The closeness to special employment sub-centers differs across households with different income levels.

**iii. Transportation and Residence Decisions**

According to Lawton *et al.* (2013), factors such as accessibility and travel time to places of employment and other activities have a continued importance to residential location decisions. While there is a higher tendency for younger staffs to pick city centres, older staffs largely choose to live in suburban areas with good transport networks to commute to city centres or their places of employment. Transportation infrastructure and options heavily influence residential choices (Handy, 2011). Areas with robust public transportation networks or good walkability attract individuals seeking sustainable and convenient commute options (Litman, 2014).

**iv. Neighborhood Character, Infrastructure and Dwelling Quality Factors**

The characteristics of a neighborhood itself play a major role in attracting residents (Mieszkowski & Mills, 2011). Factors like safety, access to green spaces, educational opportunities, and the presence of amenities like parks and libraries contribute to a neighborhood's appeal (Been & Shewbridge, 2017). Additionally, the quality of housing units themselves, including features like size, condition, and amenities, influence residential choices (McKenzie, 2012). Understanding resident preferences for these various aspects is crucial for creating thriving and desirable neighborhoods.

**v. Income and Environmental Factors**

The relationship between income and environmental quality is complex and often unequal. While higher-income individuals often have the means to access areas with desirable environmental attributes like clean air

and proximity to nature, lower-income communities may be disproportionately burdened by environmental hazards (Pastor et al., 2013). This "environmental justice" issue highlights the need for policies that ensure equitable access to healthy and sustainable environments regardless of socioeconomic status (Ringquist, 2013).

## Research Methodology

### Population of the Study

The population for the study consists of 3277 Federal Civil Servants all from level (8 – 17) in fifteen Federal Government Parastatals and Agencies in the study area.

### Method of Data Analysis

Research data is at best pleasant only when it has been analyzed. As a result, data analysis necessitates interpreting set of recorded observations into descriptive statements, graphic representations, illustrative figures, pictorial informations, detailed diagrams and conclusions. For the purpose of this research Simple random sampling was employed as it gives every worker in every parastatal in the study area within the grade level 8 – 17 an equal chance of being selected as a respondent to the questionnaire /interview. Analytical techniques such as mean scores, Pearson's moment correlation and multiple options approach were employed in analyzing the data collected from the study area.

## Result and Discussion

### Results

#### Factors that determines residential location decisions among civil servants in the study area

In order to achieve the objectives, the data collected from federal civil servants in the FCT was subjected to multi choice option analysis. This analysis presents the responses of respondents that is, the federal civil servants in Abuja Municipal Area Council, FCT and rank this options considered (push and pull) factors in their level of agreement by the respondents ranked in percentages. The analysis and presentation of the pull and push factors in their order of agreement by the respondents are presented in table 4.1 and 4.2.

**Table 4.1: Summary of Ranked Pull Factors as Determinant for Choice of Location in the Study Area**

Pull Factors	Frequency	Percent	Rank
i. Proximity to work	200	24.2%	1st
ii. Affordable rent	148	17.9%	2nd
iii. Available infrastructures	105	12.7%	3rd
iv. Caliber of residents	48	5.8%	7th
v. Closeness to race /tribe /religion	35	4.2%	9th
vi. Rent free accommodation	70	8.5%	6th
vii. Proximity to relatives /friends	48	5.8%	7th
viii. Quietness of the area	91	11.0%	4th
ix. Change in marital status	72	8.7%	5th
x. Others	9	1.1%	10th
<b>Total</b>	<b>826</b>	<b>100.0%</b>	

Source: Researchers' Field Survey, 2023.

Table 4.1 presents the ranked order of pull factors that federal civil servants consider when making choices about their residential location. Employing a multiple-choice option for dichotomy groups, with 1 indicating selected options from the multiple choices provided, the responses of the civil servants are depicted in percentages concerning the factors influencing their choice of location. As illustrated in Table 4.7, proximity to the workplace

emerges as the most pivotal factor influencing the accommodation choices of civil servants, with 200 respondents (24.2%) expressing its significance. Following closely is affordable rent, reflecting the civil servant's ability to pay for their chosen accommodation, which accounts for 148 responses (17.9%). Other influential factors include the availability of infrastructures, cited by 105 respondents (12.7%), and the consideration of quietness of the environment, with 91 respondents (11.0%). Furthermore, changes in marital status were indicated by 72 respondents (8.7%) as a factor influencing their choice of location. The availability of rent-free accommodation options was noted by 70 respondents (8.5%), followed by the caliber of residents which tallied with proximity to relatives and friends, were both mentioned by 48 respondents (5.8%). Others factor, though not explicitly detailed in the table 4.7, it contributed the least to the decision-making process, further diversifying the considerations of federal civil servants when selecting their residential locations. This comprehensive analysis underscores the multifaceted nature of factors influencing the residential choices of federal civil servants in the study area of AMAC. The data provides valuable insights into the priorities and considerations that shape their decisions, offering a nuanced understanding of the complex interplay between practical, financial, and personal factors in the selection of accommodation within the study area of Abuja Municipal Area Council, FCT.

**Table 4.2: Summary of Ranked Push Factors as Determinant for Choice of Location in the Study Area**

Push Factors	N	Percent	Rank
i.Purchase / built own home	115	13.5%	2 <sup>nd</sup>
ii.Size / quality of dwelling	90	10.6%	4 <sup>th</sup>
iii.Unaffordable rent	78	9.2%	5 <sup>th</sup>
iv.Family /social contacts	59	6.9%	7 <sup>th</sup>
v.Neighbourhood character	63	7.4%	6 <sup>th</sup>
vi.Personal reasons	117	13.7%	1 <sup>st</sup>
vii.Unavailable infrastructure	42	4.9%	10 <sup>th</sup>
viii.Social status	50	5.9%	9 <sup>th</sup>
ix.Distance to work	106	12.5%	3 <sup>rd</sup>
x.Change in family composition	38	4.5%	11 <sup>th</sup>
xi.Natural features/weather	12	1.4%	12 <sup>th</sup>
xii.Change in income	58	6.8%	8 <sup>th</sup>
xiii.Distance from petrochemicals	12	1.4%	12 <sup>th</sup>
xiv.Distance from construction acts	4	.5%	15 <sup>th</sup>
xv. Others	7	.8%	14 <sup>th</sup>
<b>Total</b>	<b>851</b>	<b>100.0%</b>	

a. Dichotomy group tabulated at value 1.

Source: Researchers' Field Survey, 2023.

Table 4.2 unveils the push factors influencing the choice of location by federal civil servants in the Federal Capital Territory (FCT), particularly the Abuja Municipal Area Council. The items are ranked based on their selections, with the most chosen factor securing the 1st rank. The results presented in percentages, sheds light on the considerations that drives the decisions of the civil servants when determining their residential locations in the study area of AMAC. As depicted in Table 4.8, the foremost push factor ranked 1st, is personal reason, identified by 117 respondents (13.7%). Following closely and ranked 2nd is the purchase / built own home, with 115 respondents (13.5%) emphasizing the importance of one owning his /her own home. Distance of the location to workplace, identified by 106 respondents with (12.5%) emerged as the 3rd ranked push factor. The size and quality of dwelling, with 90 respondents (10.6%) holds the 4th position emphasizing the importance of the space available. This underscores the substantial influence of the physical dimensions of a location on the choices made by civil servants in AMAC, FCT. Unaffordable rent secured the 5th position with 78 respondents (9.2%), indicating financial considerations as a significant determinant in their decision-making process. The subsequent push factors,

the neighborhood character ranked 6<sup>th</sup>, this reflects a positive trend also, with 63 respondents (7.4%) is a crucial factor influencing residential location choices by federal civil servants in Abuja. Family /social contacts ranked 7<sup>th</sup>, it was indicated by 59 respondents (6.9%) emphasizing the importance of considering family and social contacts attachment as a determinant in their decision-making process. Change in income as a factor influencing civil servants location choices is the push factor ranked 8<sup>th</sup> with 58 respondents (6.8%). Other factors such as Natural features /weather which tallied with distance from petrochemical activities, despite both being mentioned by 12 respondents (1.4%) were both ranked 12<sup>th</sup> and are among the least ranked determinants implying their limited influence in the choices of location. The 14<sup>th</sup> ranked factor is "Others," though not explicitly detailed in the table 4.8., it was still indicated by 7 respondents making only (0.8%), and among the factors that contributed the least to the decision-making process of the civil servants when selecting their residential locations. Furthermore, distance from construction /engineering activities factors were picked out by only 4 respondents constituting (0.5%) of the total percentage of the questionnaire respondents, it ranked the lowest at 15<sup>th</sup> position implying their insignificant influence in the decision-making process of civil servants in the FCT. Considering the discussions in the preceding paragraphs, it can be statistically stated that there is a positive and significant relationship between the socio-economic characteristics of federal civil servants and their choices of location within Abuja Municipal Area Council, FCT, Nigeria. This statistical affirmation strengthens the understanding that the socio-economic landscape of federal civil servants plays a pivotal role in shaping their preferences and considerations when selecting their residential locations.

### Conclusion

In Adedokun, (2023), the cost of living and commuting should be carefully considered when choosing a place to live. The analysis presented here provides a clear picture of the costs involved in commuting in two locations. While cost is an important factor to consider, it is also essential to weigh other factors such as the proximity to support systems, type of neighborhood, and overall cost of living. Striving to find the right balance between cost and lifestyle will help one enjoy the best life has to offer while living within your means. It is important to note that while nominal rental and commuting costs are clear, there are other costs attached to living in specific locations and at specific distances from work that are covered in this analysis. These other factors influencing choices of the place of residence other than the costs analyzed above may include the following: living in an owner-occupier home, sentimental attachments to the house or location, type of neighborhood, and proximity to support systems e.g. family, friends, place of worship, etc., and other incidental costs like school fees.

### REFERENCES

- Abubakar, I.R. (2014). Abuja City Profile. *Cities*. 41; 81-91.
- Adedokun, G. (2023). Smart Commuting: Cost-Effective Options for Better Work life Balance. St. Lawrence College, University of London, Ontario, Canada. Published 3<sup>rd</sup> February, 2023.
- Ajayi, O.E., & Oyewobi, O.L. (2019). Challenges of Accessing Affordable Housing by Low-Income Civil Servants in Abuja, Nigeria. *International Conference of Environmental Sciences, ICES 2019*. 1st International Conference of the Faculty of Environmental Sciences, University of Ilorin, Nigeria, 29th - 30th April 2019.
- Alba, R., & Nee, V. (2011). Assimilation or ethnic enclave? Immigrant incorporation across US metropolitan areas. *Population Research and Policy Review*. Harvard University Press, 30(3), 449-479.
- Ayoola, A.B., Kemiki, O.A., Popoola, N.I., Ojetunde, I. & Oyedele, J.B. (2020). Determinants of Residential Property Location Choice of Tenants in Bosso and Chanchaga Local Government Areas of Minna, Nigeria. *Ife Journal of Science and Technology*. Vol. 4. No. 1 (2020) 99-118.
- Amao, F.L., & Ilesanmi, A.O. (2013). Housing Quality in the Urban Fringes of Ibadan Nigeria. *Sustainable Building Conference*, Coventry University, UK.
- Been, V., & Shewbridge, M. (2017). *Unequal ground: Housing and racial segregation in urban America*. Cornell University Press.
- Bello, V.A. & Nwosu, A.E. (2011). Effects of Urban Renewal on Residential Property Values in Two Neighborhoods of Akure, Nigeria. *FUTY Journal of the Environment*, Vol. 6, No. 2, December 2011. School of Environmental Sciences, Modibbo Adama University of Technology, Yola - Nigeria. ISSN: 1597-8826. <http://dx.doi.org/10.4314/fje.v6i2.4>
- Freeman, L., & Schuetz, J. (2017). Producing Affordable Housing in Rising Markets: What Works?. *Cityscape: A Journal of Policy Development and Research*, 19(1).

- Handy, S. (2011). *The half-mile circles: Does it best represent transit station catchments?* Berkeley, CA: University of California Transport Center.
- Lawton, P. Murphy, E. & Redmond, D. (2013). "Examining the Role of „Creative Class“ Ideas in Urban and Economic Policy Formation: The Case of Dublin, Ireland." *International Journal of Knowledge-Based Development*, 1 (4) 267-286.
- Litman, T. (2014). *Evaluating transportation impacts on real estate value: A literature review and methodology proposal*. Victoria Transport Institute.
- Magaji, J.Y. & Adenyuma, M.O. (2020). Assessment of Public Participation in Solid Waste Management in Abuja Municipal Area Council, FCT, Abuja. *African Scholar Publications & Research International*. Vol. 17 No.6 ISSN: 2110-2086, March, 2020.
- Massey, D. S. & Denton, N. A. (2015). *American Apartheid: Segregation and the Making of the Underclass*. Harvard University Press.
- McKenzie, L. (2012). Neighborhood effects: Long-run consequences for children. *Science*, 337(6093), 624-626.
- Mieszkowski, J., & Mills, E. S. (2011). Housing, infrastructures and economic growth. *Journal of regional science*. 51(1), 163-195.
- Muhammad, Z., Johar, F., Sabri, S. & Jonathan, Z.U. (2015). A Review of Housing Provision and the Challenges of Sustainable Housing Delivery in the Federal Capital Territory Abuja, Nigeria. *Journal Technology*, 77:14 (23-31).
- Musterd, S., Andersson, R., Galster, G. (2019). Chapter 18: Neighbourhood effects on social outcomes. *Handbook of Urban Geography*, 281-296, 2019. <https://doi.org/10.4337/9781785364600.00029>
- National Bureau of Statistics (2017). *Annual Abstract of Statistics 2016*, Federal Republic of Nigeria. <http://www.nigerianstat.gov.ng/>
- Oladapo, R.A., Ojo, B., Ayoola, A.B. & Kemiki, O.A. (2019). Factors Influencing Tenants' Choice of Location of Residence in Bosso Local Municipality, Minna, Nigeria. *Journal of African Real Estate Research*, 4(1), pp.25-41. doi:10.15641/jarer.v4i1.662.
- Olayiwola, A.M. & Olaitan, A.A. (2019). Spatial Preference of Urban Residential Location in Osogbo, Nigeria. *Ghana Journal of Geography* Vol. 11(1), 2019, Pages 140 – 158 doi://<https://dx.doi.org/10.4314/gjg.v11i1.9>
- Pastor, M., Morello-Frosch, R., & Zhou, M. (2013). The environmental cost of displacement: How gentrification exposes low-income communities to toxic burdens. *Social Problems*, 60(3), 661-689.
- Ringquist, E. J. (2013). *Sprawl, sustainability, and the future of cities*. Routledge.
- Rugh, J. S., & Massey, D. S. (2010). Racial Segregation and the American Foreclosure Crisis. *American Sociological Review*, 75(5), 629-651. <https://doi.org/10.1177/0003122410380868>
- Salihoglu, T. & Türkoglu, H. (2019). Determinants of Residential Location Choice in Istanbul: A Longitudinal Study. *Open House International* Vol.44 No.4, December 2019.
- Sinniah, G. K., Shah, M. Z., Vigar, G. & TeguhAditjandra, P. (2016). Residential Location Preferences: New Perspective. *Transportation Research Procedia* 17 (2016) 369–383. DOI: 10.1016/j.trpro.2016.11.128
- Ubani, P. (2015). *Factors Influencing Residential Location Decision in Port Harcourt Metropolis, Nigeria*. (Master's Thesis). Department of Urban and Regional Planning, University of Nigeria, Enugu Campus.
- Ubani, P., Alaci, Davidson S.A. & Udo, V. (2017) "Determinants of Residential Neighborhood Choice in a Nigerian Metropolis" *Journal of Humanities and Social Science (IOSR-JHSS)*, 22(11), 01-11, Issue 7. ISSN: 2279-0837, P-ISSN: 2279-0845.
- Udo, G.O., Nwojo, A.K. & Akpan, U.E. (2020). Analysis of the Factors Influencing Residential Housing Consumers' Location Preferences in Uyo. *Supporting Inclusive Growth and Sustainable Development in Africa*. Vol. 1, pg 271–283. ISBN 978-3-030- 41978-3 ISBN: 978-3-030-41979-0 (eBook) <https://doi.org/10.1007/978-3-030-41979-0>
- Wu, F. (2010). "Housing Environment Preference of Young Consumers in Guangzhou, China" *Property Management*, 28(3) 174-192.
- Yan, X., Zhou, J., Sheng, F., Niu, Q. (2022). Influences of Built Environment at Residential and Work Locations on Commuting Distance: Evidence from Wuhan, China. *ISPRS International Journal of Geo-Information*. 2022; 11(2):124. <https://doi.org/10.3390/ijgi11020124>.