Determinants of Residential Mobility in Osogbo, Osun State, Nigeria

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ABSTRACT

This study focuses on determinants of residential mobility in different residential areas of Osogbo. Data for the study were collected from primary and secondary sources. Primary data were collected through questionnaire administered on household heads in Osogbo that was stratified into core, transition and sub-urban residential areas. These residential areas were made-up of 26 electoral wards, random sampling technique was used to select one (1) out of every three (3) electoral wards in each residential zone giving nine (9) electoral wards. From a total of 10,027 residential buildings in the selected wards, one out of every twenty (20) building was systematically selected for survey, a total of 499 buildings was sampled. Information obtained include: socio-economic attributes of residents and factors influencing residential mobility among others Secondary information collected from government agencies include maps and electoral wards information. Data collected were analyzed using both descriptive and inferential statistics. Findings shows that the highest factor of residential mobility is House and economic factors accounted for (19.81%), followed by Infrastructural and accessibility factors (17.52%), Neighbourhood factors (12.23%) and Household factors (10.34%) respectively. The study concluded that factors influencing household residential movement including the residents' socio-economic, overall housing and neighbourhood conditions and attributes among others, which varied along the different residential areas of Osogbo.

INTRODUCTION

Studies have shown that importance of housing to man cannot be over-emphasized. Housing is one of the most basic of human needs after food (Omuta, 1986; Ajanlekoko, 2001; Olayiwola, Adeleye and Ogunshakin, 2005; Akeju, 2007; Walker, 2010; Ademiluyi, 2010; Olayiwola, 2012). Housing has influence on the health, wealth, behaviour and efficiency of man and the nation at large. Housing is a system of both physical and social structures. According to UN-Habitat (2012), the physical structure of housing includes residential buildings, their design, material qualities, their arrangement in space, and their ecological interactions with the environment. The social structure of housing includes residence based activities, their character, social qualities, and their socio-economic interactions with the immediate communities. The need for good housing makes urban residents to change their housing from time to time when the need arises.

Residential mobility is conceived here as a change of housing from time to time in the city or neighbourhood. Defined in broadest terms, housing mobility denotes the movement of residents from one house to another or from a neighbourhood to another in the city is called residential mobility (Gbakeji and Rilwani, 2009; Zanganehand Samiee, 2012). This definition is a general perspective because it emphasises the resident or neighbourhood at the heart of the mobility. Short (1978) referred to residential mobility as the movement of household within urban areas. A more recent definition was given by (Clark, 2012), which states that

"*Residential mobility and migration are the processes whereby families change their houses and their residential locations whether it is a neighbourhood, a city or a state.*" pp. 2.

Urban household has also viewed it as the occasional intra-urban change of residence (Okpala, 1981). According to Dong et al., (2017); Allen, 2015) opines that residential mobility is a response of the households

to the dissatisfaction or stress encountered because of environmental conditions. Mulder & Manting (2011) classified residential mobility as actual or intended. Actual residential mobility is objectified (the movement based on necessary factors) while intended is a household's residential mobility decision yet to be executed, Rossi (1955) characterized residential mobility as a means by which housing consumption patterns adjust over time. Claudia, (2016) opined that housing mobility is an issue of space and time. In another parlance, Mathieu and Mark, (2015) revealed that residential mobility operates at an equilibrium point between housing supply constraints and housing demand conditions; it is also multi-dimensional in nature. These issues are important, this is because as long as there exists an economic, demographic and spatial adjustment among individuals or groups, residential mobility is bound to occur and its determinants are necessary to be studied.

There are several known causes of residential mobility especially in developing nations. Residential mobility occurs due to economic, demographic and spatial adjustment. Individual's (or household's) characteristics is matched to dwelling unit characteristics, household income is matched to housing price, stage in life cycle with type of housing, life style preferences with type of community, and commuting preferences with job location (Berry and Kasarda, 1977). The process of residential mobility most especially among urban dwellers is initiated by changes in family structure, financial situation, and physical needs as people age (Vlist et. al., 2001). In another view, notable causes of residential mobility include enabling and disabling factors. Enabling factors refers to the favourable conditions that called for household's movement while the disabling factors are those that are hindering residential mobility is disabled factors. Coulter & Scot, (2014) revealed that the decision of household's either to move or not to a particular location is determined by the two identified factors.

Urban dwellers in general can be classified into two groups namely; the movers and non-movers. A movers are people who change their residences in the town while non-movers are people who enjoy some form of residential fixity or immobility (Okoko, 2005). Short (1978) posited that younger households move more frequently than older households. However, older households tend to move when life-course events are apparent, such as retirement and health deprivation (de Jong and Brouwer, 2012). Demographic factors, like age and gender, have been cited to have major selective influence in mobility propensities (Clark, 1976; Champion and Fotheringam, 1998).

Residential mobility is an inevitable phenomenon in the housing sector that is characterized with both positive and negative effects. Households' movement from one neighbourhood to another within a city brings up obvious consequences on the formation and changing social domain inside the city and generally on the urban spatial structure of the city (Zanganeh and Samiee, 2012). Thus, studying why and how residential mobility happens is of particular importance, in understanding the social patterning and spatial structure of the city, most especially now that urban sprawl is becoming a global problem (UN-Habitat, 2011). Olujimi (2009) corroborated that there is no Nigerian city that can be separated from the stigmatization of urban sprawl. Aguda and Adegboyega (2013) showed that urban sprawl development in Osogbo was at a rate of 4.9Km^2 per annum. The need to document the determinants of residential mobility is imperative to the current study to minimize the continuous urban sprawl in the study area and beyond.

The frequency with which people change their residential locations, why they move and the patterns of movement are not just of relevance to urban planners alone, but also to public policy makers. Understanding the determinants of residential mobility in a neighbourhood will not only reflect the nature of the local housing market, but also help government to tackle the housing problems of that neighbourhood. It is on this note that attempt was made to assess the factors that can influence residential mobility with Osogbo town as a case study.

LITERATURE REVIEW

This chapter elucidated the concept of residential mobility, housing movement, factors of residential mobility determinants. Explanations documented in literature as to the determinants of residential mobility being a unique form of driver of sprawl in Nigeria was also reviewed.

To develop this article further, what follows from here is structured into sections. The next section is about a discussion on the deep-rooted determinants of residential mobility. Next to this is a discussion on the

peculiar the residential mobility in Osogbo. The research methodology is then described, and this is followed by research findings and discussion. Moving forward, this article offers some potential policy recommendations in the final section.

The Concept of Residential Mobility

Rossi's (1955) pioneering work on *why families move* plays a significant role in perceiving residential mobility as an outcome of *residential stressors.* The study asserts mobility as the process by which families adjust their housing to the housing needs. These needs are generated by the shifts in the family composition that accompany life cycle changes. Residential mobility is the occasional intra-urban change of residence by urban household (Okpala, 1981). Short (1978) defines residential mobility as the movement of household within urban areas. Residential mobility refers to intra-city moves that are often related to housing (Clarke, 1986).Also, it is the process whereby household change residence in response to shifts in housing demand and needs.

Residential mobility as a process is initiated with changes in family structure, financial situation, and physical needs as people age (Vlist et. al., 2001).This creates a gap between the desired and the current housing consumption. The next stage is the search for a new accommodation that will fulfil the desire of the household, the third stage is the bidding for the new accommodation and lastly after the household successfully bided for the new accommodation they move into the new accommodation.

Residential mobility is the process of matching an individual's (or household's) characteristics to dwelling unit characteristics: household income is matched to housing price, stage in life cycle with type of housing, life style preferences with type of community, and commuting preferences with job location (Berry and Kasarda, 1977). Many researchers see residential relocation as a dynamic process that could occur several times in one's life. Disaffection with existing residence because of changes in family structure, environment or social psychological needs could set in motion the search for a new home to satisfy the new desires. Different authors viewed residential mobility from their various perspectives, Andraesen et al., (2017); Brown &More, (1970) contended that economists point of view is differ from Geographer and Urban Planners. The behaviour of individual is judged by the economists based on the result of market process while households' residential choices within the broader of geographical structure and physical planning of urban area is considered by geographer and urban planners.

Housing Movement

Demographic factors, like age and sex, have the major selective influence in migration propensities (Champion and Fotheringam, 1998).Rex (1968) in his study of British cities pointed out that there is a high mobility among the middle classes, who are anxious to distance themselves from the working class and the squalor of the city centre. Supporting this view, Owen and Green (1992) reported that inter-regional migration rates for those with degree or higher degree qualifications are twice the average, while it is lower for those with only school qualifications. Piras (2005) estimation also revealed that migration increases considerably with educational attainment.

Okpala (1981) in his study of Nigerian cities stated that residential mobility is mainly the characteristics of the renters. Boyce (1971) and Maris (1962) also ascertained that owner-occupiers move less often than renters. Contrary to these views, Buck (1994) uses data from the BHPS to show that there are surprising proportions of moves from owner occupied categories to renting. Also, Konstantinos (2006) in his study of older households in central and northern Europe found that there is an increasing transition from owner occupier to renter. Often, elderly tend to move when life-course events are apparent, such as retirement and health deprivation (de Jong and Brouwer, 2012)

Drivers of Residential Mobility

Household change residence for a lot of reasons, many scholars both in Nigeria and the rest of the world have given many reasons why household change their residence. The workplace location has influence on the

residential location and relocation decision of household (Alonso, 1964; Broughton and Tanner, 1983; Clark, 2000; Clark and Withers 1999; Waddell et al. 2008). However, the works of Cooke (1978), Steinnes (1982) and Miller (1982) contended that there are cautions in relationship between workplace location and residential relocation. Clark and Burtl (1980), and Sjaastard (1962) noted that there is a tendency for household to locate closer to workplaces. Newton (1977) expressed limitation in the relationship between workplace location and household residential mobility. Babarinde (1995) found that there is no relationship between the spatial distribution of jobs and housing in metropolitan Lagos. Olatubara (1996) noted that although workplace location are important determinant of residential location, there are other far more important factors that determines household residential location.

Apart from this, accessibility factors, such as accessibility to shopping areas, walkability to stores and services, availability of public transit, and proximity to recreational opportunities, were also important considerations in residential location decisions (Bhatand Guo, 2004; Bowes and Ihlanfeldt, 2001; Colwell, Dehring and Turnbull, 2002; Forsyth et al., 2007). Other factors that determine residential mobility are socio-economic level of household (Clark, 1970; Newton, 1977); size of household, income, home ownership and the preference for better dwelling and neighbourhood characteristics (Huff, 1979; Coulton et al, 2012). A major concept used in residential mobility research is the household lifecycle, represented by the changing demographic characteristics of a household as it progresses through stages from formation to dissolution. The impact of these stages on moving is found in the expansion and contraction of family size. The works of Rossi (1980), Clark et al. (2003) and Gyimah (2001) among others confirmed this. Rees et al. (1996) can extract empirical illustration of the importance of the life course from the case study of internal migration and regional population dynamics in the United Kingdom. The relationship between life course and residential mobility has a strong support in migration literature, both theoretical (Rogers et al., 1978; Warnes, 1992, Mulder and Lauster, 2010) and empirical (Polachek and Horvath, 1977; Plane and Heins, 2003).

The works of Forsyth *et al,.* (2007) and Gyimah (2001) claim that people move for safety reasons. Other factors includes; stress and dissatisfaction with initially occupied units in relation to the size of household (Jones, 1979; Brown and Moore, 1970); realtors' involvement in the search process, head of household age and length of residence (Clark and Smith, 1982); magnitude of search and moving cost (Weinberg et al, 1981); search cost (De Boer, 1985); ethic group social links (Afolayan, 1994); tendency of households to maximize expected utility (Smith and Mertz, 1980; Phipps and Laverty, 1983); financial difficulties (Buck, 1994); size of household, characteristics of poor households and number of children in school (Oyegun, 2000).

Trade-offs between housing qualities and rents, activity opportunities, and travel costs have long been recognized as fundamental considerations in both the decision to move (Rossi, 1980; Brown & Moore, 1970). Brown and Moore (1970) identify five categories of factors that may affect households' choice of neighbourhood accessibility (to city centre, communications, service, green areas etc.), physical characteristics of the neighbourhood (material condition of street and sidewalk, layout, beauty). Others are services and facilities (quality and accessibility), social environment (socioeconomic, ethnic and demographic composition, friends and friendliness), and individual site and dwelling characteristics (costs, housing size etc).

Further to the identified drivers of residential mobility, David Nooraini & Norsiah (2018) intimated pull and push factors to residential mobility. Push factors are the distractive forces such as crime, pollution, insecurity, level of housing satisfaction and affordability can push household away to another place. While the presence of security, serene and aesthetic environment, infrastructural facilities, recreational and employment opportunities among other can serve as attractive forces that pull households to a particular new area. In the opinion of Nathaniel & Raji (2018); Eya et al., (2013); Greg & Snell (2006) stated that the benefit of a child or children or all other members of the family can influence the parental decision's to move. Therefore, the decision of residential mobility is embark on in response to a certain factors.

MATERIALS AND METHODS

## An Overview of the Study Area

The study area is Osogbo, Osun State which consists of two Local Government Areas which are Osogbo and Olorunda local governments having Igbona and Oke Baale as their respective headquarters. The study area is

also situated at the centre of Osun State, Osogbo originated as a traditional and cultural town, its name was derived from proclamation by the goddess of Osun River. The people in this region are Yorubas having their origins linked to Ile-Ife which is believed to be the ancestral home of all Yoruba race. Like other traditional Yoruba settlement, Osogbo is made up of three residential areas. These are the core, transition and sub-urban areas. The area lies between latitude $7^o 47^I$ North of the Equator and Longitude $4^o 26^I$ East of the Greenwich meridian with an area of 47kmsq. It was bounded in the West by Oyo state, Ondo and Ekiti States in the East, on the North by Kwara State and in the South by Ogun State (Figure 1 and Figure 2).

Figure 1: Map of Nigeria showing Osun State
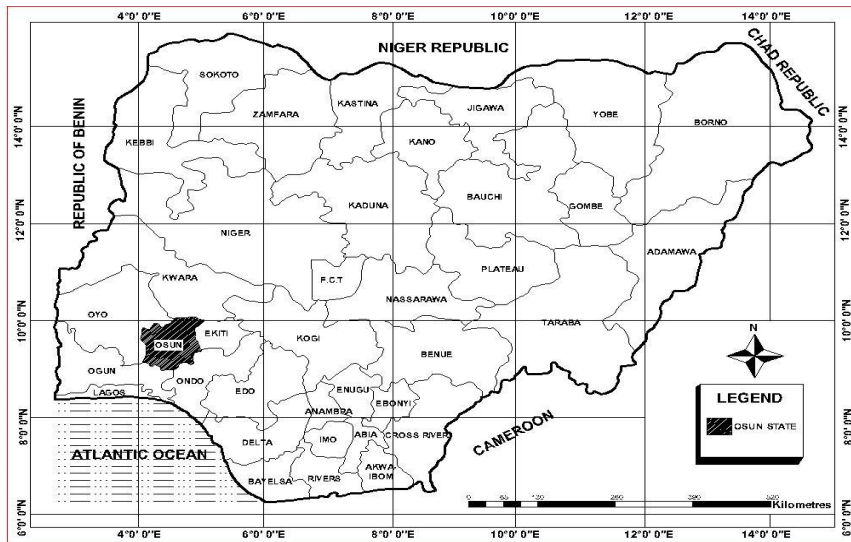
Source: National Airspace Research and Development Agency (NARSDA) 2020

Figure 2: Map of Osun State Showing Osogbo and Olorunda Local Government Area
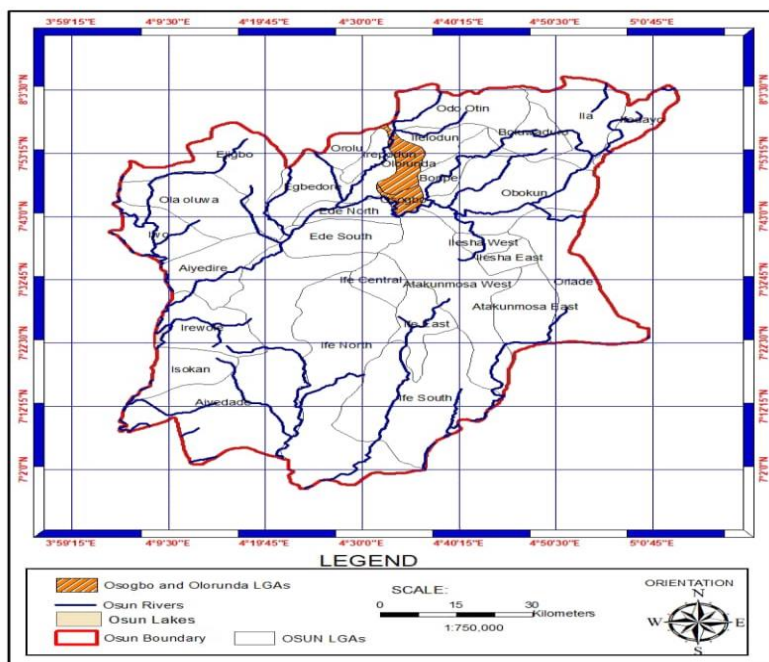
Source: National Airspace Research and Development Agency (NARSDA) 2020

Research Method

Data collection was from both primary and secondary sources. Primary data were collected using multistage sampling technique to administer questionnaire on the households in Osogbo and Olorunda Local Government

Areas LGAs, Osogbo. Reconnaissance survey coupled with google Earth revealed that there are total of 10027 buildings in the selected areas of residential zones. In the core (1201 and 2558), transition (4434 and 1063) and suburb (443 and 328) in the study area. Information obtained from INEC showed that there were 26 electoral wards in the study area. Simple random sampling technique was used to select one out of every three electoral ward in each residential zone. Thus, 9 electoral ward were sampled out of the 26 wards in the study area. 5% of the identified buildings were sampled.

Thus, one out of every 20 building were selected adopted systematic random sampling technique. Using this procedure, questionnaire was administered in four hundred and ninety nine (499) buildings in the study area (Table 1). Primary data were derived from fieldwork, involving the administration of questionnaire to source information from household heads. In cases where the household head is unavailable an adult above the age of 18 years was surveyed. Secondary data were sourced from Ministry of Lands, Physical Planning and Urban Development, Local Planning Authorities, Local Government Secretariats, and Google maps, among others. Data were analysed using descriptive and inferential statistics.

Table: 1 Electoral Wards and Number of Houses in the Study Area

Local Govt Area	Residential Zones	Ward Name	No. of Ward	Selected Ward(s)	No. of Buildings	Buildings to be Sample
Osogbo	Core	Otun-Jagun A; Alagbaa and Are-Ago	3 (1)	Alagbaa	1201	60
	Transition	Otun-Jagun B; Ataoja A, B,C,D and E; Jagun B; Eketa; Otun-Balogun and Ekerin	10 (3)	Eketa; Otun-Balogun and Ekerin	4434	221
	Sub-Urban	Baba kekere and Jagun A	2 (1)	Baba kekere	443	22
Olorunda	Core	Owode 1&2; Balogun; Owoope and Akogun	5 (2)	Owode 1 & 2	2558	127
	Transition	Ayetoro; Agowande and Atelewo	3 (1)	Ayetoro	1063	53
	Sub-Urban	Oba-Ile; Oba-Oke and Ille	3 (1)	Oba-Ile	328	16
Total			**26 (9)**		**10027**	**499**

Source: Independent National Electoral Commission, 2007; (Adapted from Oluwadare, 2019)

RESULT AND DISCUSSION

Findings are discussed in various sub-sections as follows. Except where otherwise stated, information presented in tables were results from the household survey conducted by the authors in 2020.

Determinants of Residential Mobility

Many factors are responsible for household's decision to move or stay in a residence at a particular point in time. Many scholars both in Nigeria and the rest of the world has given many reasons why household change

their residence. This section discusses the factors that influences residents' decision to stay or move. The first part of this section used logistic regression to determine the effects socio-economic factors on residential mobility. The second part of this section used factor analysis to evaluate seventeen residential mobility variables.

Effects of Socio-economic Factors on Residential Mobility

Discussed below is the relationship between residential mobility and six socio-economic variables. However, it could be argued that besides socio-economic factors, factors such as housing and neighbourhood factors might also explain residential mobility. The objective here therefore is to examine the relative effects of gender, age, marital status, years spent for formal education, income and household size (independent variables) on residential mobility (dependent variable) in Osogbo. Considering the binary nature of the dependent variable, logistic regression is deemed the most appropriate statistical technique (Hagenaars, 1993; Demaris, 1992; Clark and Hosking, 1986).

The results of the analysis are presented in Tables 4 and 5. Presented in Table 4 is the model summary for the analysis. Overall, the mode1 is a fairly good fit for the data. The Model χ2 of 40.212 indicate that the model is significant at 1% (0.000) level of probability. Nagelkerke R^2 value of 0.415 implies that the predictors (independent variables) predict 42% of the variation in residential mobility. The percentage correct prediction is 92.6% which is quite high. Three of the six independent variables (Age, income and household size) were found to have significant influence on residents' decision to relocate.

Table: 2 Logistic Regression Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	217.572[a]	.201	.415
Step	**Chi-square**	**Df**	**Sig**
1	40.212	8	.000

Source: Author's fieldwork, 2020

Table: 3 Summary of Logistic Regression for Predictors

		B	**S.E.**	**Wald**	**df**	**Sig.**	**Exp(B)**
Step 1[a]	**Gender(1)**	.089	.419	.045	1	.833	1.093
	Age	-.188	.030	39.069	1	.000	.829
	Marital(1)	-.053	.641	.007	1	.934	.948
	Years	.074	.046	2.638	1	.104	1.077
	Income	.000	.000	6.916	1	.009	1.000
	Household	-.185	.081	5.195	1	.023	1.203
	Constant	3.761	1.042	13.015	1	.000	42.981
a. Variable(s) entered on step 1: Gender, Age, Marital, Years, Income, Household.							

Source: Author's fieldwork, 2020

Gender is one of the dependent variables in the equation. It is not significant (0.833; p < 0.05) but positively

related to residential mobility (0.089). The odds ratio of 1.093 implies that the males are 1.1 times more likely to move than females. In other words, males move or relocate more than females. This might be because most household heads are males and the decision to move or not to move depends on them. Also, male children leaves their parent homes earlier than the female children. Most female child live with their parent until they are married before relocating to their husband house. Age is significant in the mobility equation. The result for Age is b= -0.188, this shows that it is negatively related to residential mobility. This implies that with old age mobility decreases and young households move or relocate more than the older households. Its odds ratio value of 0.829 suggest that younger persons are 1.2 times more likely to move than older people. Older persons are less likely to relocate probably because of consideration of other family members. It might also be because they are already living in their own personal homes or close to their workplace.

Marital status is negatively related to residential mobility (b= -0.053) and is not significant. The odd ratio of 0.948 implies that single are almost 1.1 time more likely to move than married person. This is probably because married persons have to consider all members of their household. Years spent in pursuit of formal education (b=0.074) is not significant but it is positively related to residential mobility. This means the higher the number of years a person spent in pursuit of formal education the higher the chances of them relocating. Its odds ratio of 1.077 implies that persons with higher number of years are 10% more likely to move than those who spent lesser number of years in pursuit of formal education.

Income is significant and positively related to residential mobility. It odd ratio of 1.000 implies that there is no difference in the mobility rate of lower income and high income earners in Osogbo. Household size is significant (0.023<0.05). It is however negatively related to residential mobility, which implies that residents with larger household size are less likely to relocate. It has an odd ratio of 1.203, which means larger households are 1.2 times (20%) less likely to move or relocate. Larger household might move less probably because of space requirement. Also, such relocation decision will have to take all members of the household into consideration

Factors Influencing Residential Mobility

Table: 4 Factors influencing residential movers

Variables	Average Weighted Value	Rank
Availability of infrastructure and services	3.88	**1**
Housing quality	3.87	**2**
Number of rooms	3.83	**3**
Availability of water	3.56	**4**
Rent/Housing price	3.55	**5**
Accessibility to the city centre	3.53	**6**
Cost of movement	3.49	**7**
Nearness to church/mosque, market and other activity	3.41	**8**
Safety reasons	3.41	**8**
Neighbourhood quality	3.36	**9**
Closeness to friends and relatives	3.35	**10**
Availability of electricity	3.29	**11**
Type of housing	3.28	**12**

Nearness to work	3.01	**13**
Ethnic group composition of the area	3.02	**14**
Availability of good road	3.05	**15**
Nearness to children school	2.95	**16**

Source: Author's fieldwork, 2020

Aside from socio-economic factors, there are other variables that have been identified as factors influencing residences' decision to move or stay in a residential location. These variables are type of housing, neighbourhood quality, ethnic group composition of the area, housing quality, cost of movement, rent/housing price and safety reasons, number of rooms, availability of infrastructure and services. Others are availability of good road, availability of water, availability of electricity, nearness to church/mosque, market and other activity places, nearness to children school, nearness to work, closeness to friends and relatives, and accessibility to city centre. The level of importance of these variables in residential mobility were measured on five-point Likert Scale rating. Table 5 below presents a list of these variables, their average weighted value and rank.

Presented in Table 5 is the ranking of the factors influencing residential mobility according to their level of importance as identified by the residents. Availability of infrastructure and services ranked first with the highest value of 3.88. Housing quality (3.87), number of rooms (3.83), availability of water (3.56) and rent/housing price (3.55) ranked 2nd, 3rd, 4th and 5th respectively. It can be established from above that residential mobility in Osogbo is mostly influenced by available of infrastructural facilities and services among other factors.

Factor Analysis on Factors Influencing Residential Mobility

Factor Analysis was used in this study to collapse seventeen residential mobility variables into four factors. Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy test and Bartlett's Test of Sphericity were presented in Table 5. The KMO test confirm the suitability of the data for factor analysis with a value of *0.645*. Bartlett's Test of Sphericity has a value of *3.987E3* and significant value of *0.000*. These test results are in conformity with Field (2005) observation which established that for factor analysis to yield reliable factors the measure of sampling adequacy should be greater than 0.5.

Table: 5 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.645
Bartlett's Test of Sphericity	Approx. Chi-Square	3.987E3
	Df	136
	Sig.	.000

Source: Author's fieldwork, 2020

Table 6 presents the estimate of variance in each variable. The initial communalities which is one (1) was based on the initial assumption that all variance is common. The communalities after extraction reflect the common variance in the data structure. It also explains the proportion of variance explained by the underlying factors. For instance, the variable with the highest variance is variable 12 (*Availability of electricity*) with an estimate of 0.779. Which imply that 79.9% of the variance associated with this variable is common or shared across the three residential zones. Similarly, the lowest level of common or shared communalities is on variable 16 (*Closeness to friends and relatives*) with a record of 21.0% after extraction. However, for a reasonable representation of the variables it is expected that the communalities after exaction must be high. The average communalities as computed from Table 6 is 0.60 (60.0%).

Table: 6 Communalities before and after extraction process

s/n	Variables	Initial	Extraction
1	Type of housing	1.000	.732
2	Neighbourhood quality	1.000	.648
3	Ethnic group composition of the area	1.000	.631
4	Housing quality	1.000	.698
5	Cost of movement	1.000	.703
6	Rent/Housing price	1.000	.627
7	Safety reasons	1.000	.625
8	Number of rooms	1.000	.728
9	Availability of other infrastructure and services e.g Bank, Waste services, hospital	1.000	.553
10	Availability of good road	1.000	.488
11	Availability of water	1.000	.601
12	Availability of electricity	1.000	**.779**
13	Nearness to church/mosque, market and other activity places	1.000	.462
14	Nearness to children school	1.000	.755
15	Neaness to work	1.000	.525
16	Closeness to friends and relatives	1.000	**.210**
17	Accessibility	1.000	.416

Extraction Method: Principal Component Analysis

Source: Author's fieldwork, 2020

Four factors were extracted according to Kaiser's criterion (Gorsuch, 1983). It is however important to note that this is accurate because there are less than 30 variables, the sample size exceeds 250 and the average communality is greater than 0.6. (Field, 2005). As presented in Table 7 four factors with initial eigenvalues of between 1.76 and 3.37 were extracted with a total of 59.88% variance explained. Factor 1 accounted for 19.81% of the total variance explained in the original data set. Factor 2 accounted for 17.52% while factors 3 and 4 accounted for 12.23% and 10.34% respectively.

Table: 7 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.367	19.805	19.805	3.367	19.805	19.805	3.224	18.963	18.963
2	2.978	17.516	37.320	2.978	17.516	37.320	2.863	16.843	35.807

3	2.079	12.229	49.549	2.079	12.229	49.549	2.097	12.335	48.141
4	1.757	10.336	59.885	1.757	10.336	59.885	1.996	11.743	59.885
5	1.328	7.813	67.698						
6	.971	5.714	73.411						
7	.926	5.449	78.860						
8	.681	4.008	82.868						
9	.627	3.690	86.557						
10	.529	3.111	89.669						
11	.475	2.795	92.464						
12	.310	1.826	94.290						
13	.267	1.571	95.861						
14	.257	1.514	97.375						
15	.205	1.208	98.584						
16	.146	.857	99.440						
17	.095	.560	100.000						

Extraction Method: Principal Component Analysis

Source: Author's fieldwork, 2020.

A Varimax rotation was conducted on four factors. Tabachnick and Fidell (1996) suggested that variables with loadings 0.32 and above may be interpreted. Other scholars like Comrey and Lee (1992) gave a clearer view of rule, they suggested that loading in excess of 0.71 (50% overlapping variance), 0.63 (40% overlapping variance), 0.55 (30% overlapping variance), 0.45 (20% overlapping variance) and 0.32 (10% variance) are considered excellent, very good, good, fair and poor respectively. Thus, all items with primary loadings over 0.45 were observed for factor analysis in this study. The factor loading matrix is presented in Table 8.

Table: 8 Rotated Component Matrix[a]

	Component			
	1	2	3	4
Type of housing	.042	**.847**	.033	-.107
Neighbourhood quality	.374	.027	**.685**	-.196
Ethnic group composition of the area	-.170	.184	**.752**	.060
Housing quality	**.818**	.146	-.059	-.061
Cost of movement	.274	**.762**	.076	.203
Rent/Housing price	**.766**	.050	-.006	-.195
Safety reasons	-.205	**.543**	.214	**.493**

Number of rooms	-.311	**.500**	.188	**-.587**
Availability of other infrastructure and services e.g Bank, Waste services, hospital	**.612**	.113	.314	.258
Availability of good road	.337	-.098	.436	.417
Availability of water	.168	**.469**	-.128	**-.580**
Availability of electricity	-.427	.034	**.771**	-.005
Nearness to church/mosque, market and other activity places	**.605**	-.088	-.195	.224
Nearness to children school	-.032	.312	-.129	**.800**
Neaness to work	**.710**	.116	-.065	-.050
Closeness to friends and relatives	.106	.445	-.021	.012
Accessibility	-.036	**.634**	.106	-.040

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization.

Source: Author's fieldwork, 2020.

Table 8 is the rotated component matrix showing the types of variables loading highly on each factor. In this study, any variable loading with value that is greater than 0.45 will be interpreted. According to the table, component 1 has five (5) variables loading highly on it. These are housing quality (0.818), rent/house price (0.766), availability of other infrastructure and services (0.612), nearness to church/mosque, market and other activity places (0.605), and nearness to work (0.710). Due to the nature of these variables loading, component 1 is regarded as *House and economic factor*.

Six (6) variables loading high on component 2 are type of housing (0.847), cost of movement (0.762), safety reasons (0.543), number of rooms (0.500), availability of water (0.469), and accessibility (0.634). Component 2 is perceived as *Infrastructural and accessibility factor*. Component 3 consist of neighbourhood quality (0.685), ethnic group composition of the area (0.752), and availability of electricity (0.771) which could be regarded as *Neighbourhood factors*. The fourth component has four variables loading high on it. These are safety reason (0.493), number of rooms (-0.587), availability of water (-0.580), and nearness to children school (0.800) which could be referred to as *Household factors*.

CONCLUSION

The findings of this study have important implications on residential mobility prevention and resolve the identified forces such as push factors that drive people out of neighbourhood and pull factors that bring household into a neighbourhood in the study area. First, it provided a basis for understanding the determinants of residential mobility in the core, transition and suburb of Osogbo as these determinants are intrinsic in residential mobility issues. These include workplace location, security, searching for better dwellings and neighbourhood characteristics, and benefit of a child or children or all other members of the family can influence the parental decision's to move among others. It also reveals the underlying issues of residential mobility and the effects it may have on the eruption of urban economy, environment and infrastructure. This study focuses on determinants of housing mobility in Osogbo, Nigeria. It investigated socio-economic characteristics of residents in the three residential zones in the study area. The determinants of residential mobility were socio-economic characteristics; age, income and household size. Others are availability of infrastructure and services, housing quality, number of rooms, availability of water and rent/housing price are among other factors that influences residential mobility in Osogbo. Again, the fact that there seems to be little

difference between the results of this study and the findings of existing studies demonstrates that the truth about a matter can be established from households involved in the residential mobility using body of knowledge as a balance. The study has shown that residential mobility is common in the study area. It is obvious that the residential mobility has the potential affect on urban spatial structure and housing market.

The study discovered that residents' satisfaction with their housing and neighbourhood varies significantly across the three residential zones in Osogbo. The core residential zones recorded the highest number of dissatisfied residents, while the suburban zone has the highest satisfied residents. This may be due to the fact that of the 37.5% buildings in the core residential zones, only 5.6% of these buildings were built within the past 11 years. Others are above 10 years old. The opposite is the case in both the transition and suburban residential zones.This implies that special consideration must be given to the factors influencing household residential movement including the residents' socio-economic, housing and neighbourhood attributes among others which varied along the different residential areas of Osogbo.

RECOMMENDATIONS

It has been established that some factors are responsible for household's decision to move or stay in a residence at a particular point in time (Okoko, 1999; Li and Tu, 2011). Based on the conclusion of this study, it was generally established that the determinant factors of residential mobility in all the three residential zones in Osogbo range from income level of the residents to the type of neighbourhood characteristics as well as available facilities and infrastructures in the area. Others are closeness to activity nodes, affordable rent and availability of infrastructure and socio-economic factors such as age, income and household size are major factors influencing residents' relocation decision in Osogbo.

From the foregoing, it is posited that if these identified factors persist in the study area, it would be very difficult to stem the tide of the residential mobility, and its potential affect on urban spatial structure and housing market in the study area. Subsequently, sustainable goals of reducing sprawl, building strong institutions, and discouraging of overstress on available infrastructure will not be achieved. Therefore, rather than relying on intuition and guess work, the following are recommended. These could serve as guidelines for policy and decision makers as well as urban planners to enhance sustainable planning for residential areas in Osogbo. There is therefore the need for the New towns be close to the workplaces of the target population for those employed in private and civil service. Such towns should also include commercial hugs and service centres for traders and artisans. The State Government should implement policy framework that would checkmate the landlord-tenant activities in Osogbo. Such policies should seek to protect the interest of both the landlord and the tenant. Also, access to land for residential development at affordable price is a major issue that should be considered. Equally, the State Government should encourage the private sector to also focus on the rental sub-market. Likewise, policies encouraging mortgage institutions should be implemented. Above all, there is need for frameworks to manage and control the inflow of residents into into the transition and suburban residential zone which could result in urban sprawl in these residential zones.

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