



## **Socio-Demographic Impacts of Financial Inclusion on Household Home Ownership: Empirical Evidence from Nigeria**

**Manu Donga,<sup>1</sup> Adewusi, O. Adegoke,<sup>2</sup> Adamu Idi<sup>3</sup>, Amade Peter<sup>4</sup>Abdullahi Buba<sup>5</sup>**

**Kabiru Musa Yakubu<sup>6</sup>**

<sup>1, 2 & 6</sup>Department of Economics, Modibbo Adama University, Yola, Nigeria

<sup>3&5</sup> Department of Economics, Gombe State University, Gombe, Nigeria.

<sup>4</sup>Department of Economics, Adamawa State University, Mubi, Nigeria.

Corresponding Author's E – mail: [adamuidi85@gmail.com](mailto:adamuidi85@gmail.com)

### **Abstract**

*The study examined the socio-demographic impacts of financial inclusion on household Homeownership in Nigeria, with objective of investigating the impact of financial inclusion on homeownership in Nigeria, to achieve the objective of the study, logistic regression model was employed to analyzed data from global financial inclusion data 2017. The empirical result revealed that age, age square, being female, household size, residing in North East, South East, South West, Rural, Employment status and access to financial services have significant effect on home ownership. Where age contributed 1.3 percent, being female, 1.7 percent, household size 3.3 percent North East 6.2 percent, South East, 9.5 percent, South West, 2.8 percent, residing in the rural area, 22.7 percent, employment status 1.8 and access to financial services 6.9 percent to home ownership. It was concluded that financial inclusion significantly contributed to home ownership in Nigeria. The study recommends that government monetary authority should put in measures that encourage financial institution give priority to real housing financing and the policy of provision of mass housing and mortgage loan at an affordable cost should be encourage and sustain by both government and non-governmental organizations.*

**Keywords:** Credit, Demographic, Household, Logistic Regression.

**JELCODE:** E51, J19, C39, H31.

### **Contribution to/Originality Knowledge**

Home ownership has been argued to be one of the means to achieving fourteen out of seventeen goals of sustainable development goals, as well as improve household security, welfare, health and stable income. However, home ownership as become an issue of central discussion and studies conducted have focused mostly on the determinants of either home ownership or its impact on welfare. This study contributed to the literature by exploring the impact of financial inclusion on home ownership.

## **1.0 Introduction**

Access to financial services has been argued to reduce poverty, inequality, unemployment, increase access to education, health, shelter and economic growth and development (World bank, 2003). Global population has been rapidly growing in recent decades, it has been estimated that global population grow from 3.5 billion in 2011 to 7.3 billion in 2020 and projected to reach 8.5, 9.7 and 11.2 billion in 2030, 2040 and 2050 respectively, where about 94 percent of this growth is expected to take place in developing economies (World Bank,



2020). With this phenomenal growth of population, according to the World Habitat Report (2020), about one billion people live in slum and sub-standard houses globally out of which 828 million are in developing economies, 447.12 million in Sub-Saharan African Economies and 54 million in Nigeria, which serve as a threat to target 11 of the Sustainable Development Goals that is directly related to 14 of the 17 goals (World Bank, 2020). The low level of homeownership has been argued to be due to low income, unemployment, underdeveloped financial system, and financial exclusion (Kohl, 2018), underperforming mortgage banks (Daniel, 2014), and financial crisis (World Bank, 2020).

Lack of homeownership has been an issue of discuss in recent years, to both public, private and academic because of its impact on the overall wellbeing of any economy, scholars have argued that homeownership increase security, reduce labor mobility, quality of health, access to quality education, level of income, and children's performance in school (Ruluku and Gachanda, 2014, and Haurin, 2002). It has also been argued that home ownership improves societal benefit, individual productivity, and stable tenure system (Andrews & Sanchez, 2011 and Di Pasquale & Glaeser, 1999), decision on labor participation and fertility are tight to homeownership (Gayle & Miller, 2006) and the best environment for child bearing and upbringing (Ost, 2002), increase access to formal financial services and inclusive growth (United Nations, 2020), viewed as the symbol of economic welfare, wealth accumulation, community attachment and integration, symbol of life dream fulfilment, economic progress (Abramsson, 2002; Alber and Loan, 1992; Sinning, 2010; Clark & Devr, 2001). It also increase labor force participation, income, wealth, mental and physical health, mobility, food security, financial security, segregation and structure of the Urban Centre (Goodman, & Mayer, 2018; Marle & Morales, 2020; st -German & Tarsuk, 2020).

Given the importance of homeownership, almost all countries globally have made it a national policy agenda to put in policies and measures that increase homeownership in recent decades as evidence in the national housing policies of various countries. For instance, Federal Ministry of Housing, housing loan by commercial banks and mortgage bank in Nigeria, housing department in USA, UK, and Germany have been set up to promote access to shelter. With the introduction of different policies and programs in different economies, trend of homeownership has increase and varies across regions, race, income level, demographics characteristics, continents, development of the financial system and ease of access to financial services. For instance, the World Bank (2017), reported that the rate of home ownership globally has positive relationship with access to financial services, as about 50 percent of the global population that does not own a house are significantly less likely to have access to formal financial services, the trend is the same country wise where only 45 percent of the adult population have access to formal financial services against 80 percent in Kenya which corroborate with 25 and 75 percent home ownership in Nigeria and Kenya respectively (World Bank, 2017).

Recognizing the importance of homeownership, the united nations clearly spelt out in its universal declaration of human right that every individual has the right to qualitative and good standard of living, access to sanitary environment, health, education and shelter to not only himself but to his entire family. Homeownership base on this declaration has been regarded as

one of the determinants of human dignity, wellbeing, a true sense of belonging in his immediate community and play a critical role in both social and economic development of any economy (Rohe & Steward, 1996), and fundamental to total health and wellbeing of people globally (World Bank, 2015). To address the problem, government has put in place various initiatives such as the introduction of the Nigerian Building Societies, (1956), various national development plans, established Federal Housing Authorities (1973), Federal Mortgage Bank (1978), National Housing Policy (1991) and the white paper on the presidential committee on Housing and Urban Development (2001). However, despite this initiatives and policies, the rate of homeownership remains low in Nigeria 25 percent against 76 percent in Egypt, 75 percent in Kenya, and 65 percent in South Africa.

Studies have tried to explore the determinants of home ownership among which include tax (Borrassa & Hoesli, 2010), culture, (Marcen & Mohales, 2020), marital and employment status and security, (Mudrazija and Butrica, 2017), income level, (Fisher & Jaffee, 2003), religion and literacy, (Nwuba, et, al. 2014), availability of savings and credit facilities (Natalia & Miller, 2009; and Belke & Kail, 2017), gender, age and household structure (Helbe & Aizawa, 2016), financial market imperfection, (Chiuri & Japelli, 2011; Badarinza, et, al. 2016), economic performance, economic growth and household stability (Andrews and Sanchez, 2011). However, these studies have given little attention to financial inclusion as determinants of financial inclusion.

It is against this background, that this study seeks to explore the impact of financial inclusion on homeownership in Nigeria. The rest of the study will be decomposed into review of related literature, methodology, data analysis, conclusion and recommendation.

## **2.0 Literature Review**

Homeownership is the type of housing tenure in which a person who own a house through either purchase, or construction either live in the house or give it out as rent. The house can be an apartment, condominium, or housing corporation. Many homes are constructed by the owners with the intension of occupying it while others are purchase from a real estate developer. Home construction is regarded as one of the single expensive expenditure an individual or family made in their life that consume a significant percentage of an individual or family income (Andrews & Sanchez, 2011)

According to Triki & Faye (2013) an inclusive financial system is the one that provides appropriate, affordable and widely accessible quality financial services to poor and marginalized groups in the society. In addition, from the demand point of view, Hannig & Jansen (2010) define financial inclusion as financial system, which guarantee every economic agents' accessibility to the use of basic financial services, such as an opportunity to save, make payments, transfers, and have access to insurance services. Demircuc-Kunt, Allen, Klapper & Peria (2015) view financial inclusion as the ability of individuals and firms to access and use financial services. The UN Secretary General's Special Advocate for inclusive finance for development-UNSGSA (2015) define financial inclusion as universal access to a wide range of financial services at an affordable cost provided by a responsible and sustainable institutions



which involve issues relating to micro credit, remittances, payments, savings, insurance and small and medium enterprises (SME) finance. A financial system is said to be inclusive if it serve all segment of the society at an affordable cost and efficiently irrespective of their socio-economic status and ensure that all economic agents have access to and use of widely available formal financial system with less bottle necks and cost (Sarma & Paris, 2011). An inclusive financial system will ensure efficient allocation of financial resources, which in turn reduce inequality, unemployment, poverty, increase access to good shelter and more importantly stimulate sustainable economic growth and development. The above surveyed definitions show that financial inclusion is a multidimensional concept which is be young just accessibility to financial services.

### **2.0.1 Housing sector in Nigeria.**

The population of Nigeria is estimated at over 200 million (UNDP, 2018), growing at the rate of 3.25 per cent annually. This has made it the most populous country in Africa and housing the largest population of black race globally. Most of this population are residing in the urban areas, which is one the most rapidly growing in the continents growing at the rate of 6 to 8 percent per annum (World Bank, 2017). The population size, growth rate and urbanization growth rate has posed serious pressure on the available shelter as at 2017. The World Bank (2018) reported that about 90 million of the population in Nigeria are either living in a dilapidated rented apartments or slumps, which has a serious negative implication on their health, security and their intelligent quotients due to the low rate of homeownership.

The deteriorated economic condition that led to fall in value of naira has contributed to problem of homeownership in Nigeria. The cost of property development in Nigeria is higher because about 70 percent of the building materials are imported into the country. This has translated into the high cost of rent that has compelled tenants to spend 60 percent of their disposable income on rent in nigeria compare to 30 percent that were recommended by the United Nation (The Guardian News Paper, November 20, 2017). Housing deficit in Nigeria is estimated to be 17 million units and to bridge the gap, over 59.5 trillion naira is required in addition to providing 100000 units yearly (Centre for affordable Housing in Africa, 2017). Mortgage financing, which is an alternative means of owning a house, is poorly performing because of low loan to gross domestic product ratio of 0.5 percent as against 80 percent in UK and 31 percent in South Africa. The financial institutions in Nigeria are reluctant to grant loan for home construction because of the low turnover and fear of payment default since most of the homeless persons does not have the collateral and fail to meet the stringent conditions that are attach to the loan. In the same vain, even those that have the collateral are reluctant to access the credits because of high cost of borrowing and fragile interest rate.

In an attempt to address this problem, several policies and programs have been introduced with the aim of boosting the rate of homeownership, these includes, Nigerian building society (1956), first national development plan, (1962-68), where 24000 housing unit were proposed to be constructed. The second national development plan projected the construction of 54000 housing units, Federal Housing Authority where 3000 housing units has been constructed before its demise in 2008. The third national development plan proposed the construction of

202000 housing units annually through-out the plan period. The fourth national development plan (1981-85) where a sum of 1.6 billion naira was allocated to construct to build 2000 build housing unit in each of the 36 state of Nigeria, national housing policy 1991, where 700000 housing units were proposed to be constructed yearly and 8 million by the year 2000.

In addition, in 2016, the federal government of Nigeria has launch a Family Home Fund (FHF), under the social investment program where a sum of \$100 million were injected mainly contributed by African Development Bank in conjunction with World Bank. The Central bank of Nigeria has also introduced My Own Home that is design to accelerate homeownership and financial literacy, that has about 15 to 25 maturity period depending on the age and level of income of the applicant (CBN, 2018).

## **2.1 Theoretical Review**

The nexus between financial inclusion and homeownership, which is an integral part of human development exists nearly in most fundamental development theories in the last five decades. For instance, Schumpeter (1912) comes up with the finance–development nexus asserting that a developed and well-functioning financial sector is necessary for involving effective entrepreneurs in technological innovation. Moreover, Solow (1956) argues, through his growth model, that savings will increase per capita output leading to an upward shift in the whole production function and welfare. Also, Hicks (1969) states that financial development could have a significant contribution to savings and investment inputs in sectors of an economy. This further promote output in the economy through capital accumulation, financial security, health, education, housing and increase in welfare through technological enhancements as asserted by Schumpeter. Levine (1997) highlights the role of the financial sector in boosting innovation and production, where savings are pooled through the financial sector having a positive impact on economic growth and development.

## **2.2 Empirical Review**

The demand for homeownership globally has been influence by the benefits such as being a good citizen, stable neighborhood, better children outcome in schools, security, standard of living and life expectancy, strong communities and high level of satisfaction. Several studies have been conducted on determinants of homeownership, price of housing, affordability and the choice of location at both national and cross-country level, with little attention given to the impact of financial inclusion on homeownership especially in Nigeria.

Lim, Follain & Renaud (1979) investigated the determinants of homeownership, using multiple regression technique, reported that savings, household size, gender, level of education and income significantly influence homeownership in developing countries. In a separate study, using error correction model, Nwuba, Kalu & Umeh (2014) investigated the determinants of homeownership in Nigeria's urban area reported that savings, household level of income, level of education and construction period have significant positive impact on homeownership. However, the study further reported that household size, cost of land, and current rental expenditure have negative impact on homeownership.



Natalia and Miller (2009) investigated the determinants of homeownership in industrially advanced countries, using panel fixed probit model, reported that access to credit, savings, level of income, family size and the state of an economy have significant positive impact on homeownership in advanced countries. The study further revealed that homeownership rate is higher in developed countries than developing once due to ease in accessing financial product in developed countries. Similarly, Belke and Keil (2017) investigated the determinants of homeownership in German cities, using panel fixed effect probit model, reported that access to credit, savings, apartment rent, household size, level hold income and level of education have significant positive impact on homeownership. However, the study should have employed logit model, which is more robust because of its ability to consider extreme values of the coefficient. Ten (2008) in Malaysia reported that housing characteristics, employment status, level of income, culture and regulatory barriers are significantly more likely to increase home ownership.

Smail, Mansor and Mohammad (2020) explore the determinants of affordable home, using the analysis of variance, reported that housing price, location and housing structure significantly determine affordable housing ownership, while neighborhood has insignificant impact. On the other hand, Cui, Cui, and Hao (2020) explore the impact of place of origin on home ownership in Shanghai, using logistic regression, reported that status of place of origin, and geographical inequality have significant impact on the decision to own a house.

Qureshi (n.d) studied home ownership among Muslims in Norway, reported that Muslims are significantly less likely to own a house in Norway compare to being a non-Muslim. The study further revealead that lack of home ownership increase the risk of marginalization of the muslims in Norway. In Nigeria, Adediran and Oladejo (2020) explore the determinants of home ownership, reported that rate of interest, cost of building materials, land and agent fees and under developed infrastructural facilities that support the building of houses significantly influence the decision to own a house. Malmendier and Wellsjo (2020), explore the role of life time experience on home ownership within and across countries, reported that inflation experience is significant determinants of home ownership in Europe. Hilber and Liu (2011) in United State of America, explore black and white inequality in home ownership using logistic regression reported that socioeconomic and demographic characteristics significantly explain the gap in home ownership. Similarly, Dey and Brown (2020) in United State of America, using logistic regression reported that blacks and Hispanics are about 67 percent less likely to be home owners after the subprime financial crisis than white. Furthermore, the Oaxaca-Blinder decomposition result revealed that racial/ethnicity, credit inequality, experience, geographical location, household size, and level of income significantly contributed to racial inequality in home ownership, and that differences in credit contribution and geographical location significantly widen the gap in home ownership between blacks and white.

Hector (2020), in Colombia explore the determinants of home ownership, using fixed and random effect model, reported that housing prices, restrictions to credits, income per capita and population growth are significant determinants of homeownership. While Ming, Liu and Wang (2020) explore the determinants of inequality in home ownership between rural-urban and

urban-rural migrants in China using logistic regression, reported that wealth migrant are more likely to be home owners than the poorer migrant and that home ownership inequality is wider among the rich migrant than the poorer migrant. They further argued that family income, age, education, migrant experience, housing prices, and the migrant level of income significantly determined the likelihood of home ownership.

Marcen and Morales (2020) using logistic regression, in United State of America reported that culture, being a man, level of education, household size and marital status are significant determinants of homeownership. However, Andrews and Sanchez (2011) using panel logistic regression in Organization of Economic Co-operation and Development countries using panel probit, reported that homeownership varies across countries and regions due to the differences in household characteristics such as age, level of education and income. However, relaxing of dawn payment of mortgage has significant impact on increase in credit constraint household home ownership, and tax relieve and innovation in the mortgage market are among the factors that significantly increase homeownership. Arundel and Doling (2017) reported that financial crisis have negative significant impact on home ownership.

However, Helble and Aizawa (2016) employed logit model and investigated the determinants of homeownership in Japan, reported that access to credit, savings, family income, being male and household size have positive and significant influence on homeownership. However, the study further reported that household location has negative and significant impact on homeownership, with the distribution and access to homeownership being fairly equal in the rural areas than urban areas due to unequal distribution of income in the urban areas.

Conversely, Chiuri and Jappelli (2011) examined the impact of financial market imperfections on home ownership using logit regression, identified factors such as demographic characteristics, country effects, and the availability of mortgage financing to have a positive significant impact on home ownership especially among adult household.

Based on the literature reviewed, it can be observed that much of the attention has been focus on either the determinants of home ownership or impacts of financial markets on home ownership with little or no much attention given to the impact of financial inclusion on home ownership. Hence this study will contribute to the literature by focusing on the impact of financial inclusion on home ownership.

### **3.0 Methodology**

#### **3.1 Sources of Data**

This paper analyses and documents the impact of financial inclusion on homeownership using Demographic Health Surveys (DHS), database of World Bank. The database is a cross-sectional survey that provides country-level indicators among adults in 148 countries around the world. The data were collected from more than 150,000 randomly selected individuals of age 15-49, representing their respective countries by Millender and Gate foundation and Nigerian Bureau of statistics.

### 3.1.1 Model Specification.

Based on the literature reviewed and the objective of the study, the structural form of the model is specified as in equation [1]

$$Homeown_i = F \left( \begin{matrix} age_i, agesquare_i, Female_i, HSize_i, edu_i, \\ Geozone_i, Rural_i, employed_i, Finincls_n_i \end{matrix} \right) \quad (14)$$

Where  $Homeown_i$  is home ownership.

The empirical form of the model is specified as in equation [2]

$$Homeown_i = \alpha_0 + \alpha_1 age_i + \alpha_2 agesquare_i + \alpha_3 female_i + \alpha_4 education_i + \alpha_5 Geozone_i + \alpha_6 Rural_i + \alpha_7 employed_i + \alpha_8 finincls_n_i + v_i \quad (15)$$

Where  $\alpha_0$  is the intercept,  $\alpha_i$  is the slope parameters to be estimated  $V_i$  is the error term.

Given the characteristics of the data especially the dependent variable, which is dummy in nature, the binary form of the model is specified as in equation [3]

$$\text{Log} \left[ \frac{\text{Pr}(Homeown)}{1 - \text{Pr}(Homeown)} \right] = \alpha_0 + \alpha_1 age_i + \alpha_2 agesquare_i + \alpha_3 female_i + \alpha_4 education_i + \alpha_5 Geozone_i + \alpha_6 Rural_i + \alpha_7 employed_i + \alpha_8 finincls_n_i + v_i \quad (16)$$

Where  $pr(Homeown)$  is the probability of a household owning a house while  $1-pr(Homeown)$  is the probability of a household not owning a home.

### 3.1.2 Variable Measurement

The study is concern with examining the impact of financial inclusion on household home ownership, to achieve this objective, the variables of the study and their measurement are as follows;

#### Dependent Variable

**Home Ownership (0/1)** this is a dummy that take the value of 1 if the household own a house and zero if otherwise.

#### The independent variables include:

**Age** this is age the household head in years.

**Age Square** the respondent age in years squared.

**Female** this is a dummy that that take the value of one if the house hold head is female and zero if otherwise.



**Level of education** this is a measure of household head level of education that is scale from 1 if completed primary education, 2 secondary education, 3 tertiary education and 4 when he/she has no formal education.

**Geopolitical zone** this is a dummy that take the value one if the household live in a particular geopolitical zone such as North East, North West, North Central, South East, South West or South-South and zero if otherwise.

**Rural** is a dummy that take the value of one if the household live in a rural area and zero if otherwise.

**Employment (0/1)** dummy that takes the value one if the household head is employed and zero if otherwise.

**Financial Inclusion** this is a dummy that take the value of one if the house hold own a formal account, access formal credit or formal save in a formal financial institution to build a house and zero if otherwise.

#### 4.0 Method of Data Analysis

Given the objective of the study and nature of the variables especially the dependent variable that is dummy in nature, an econometrics model was employed, specifically logistic regression model rather than classical regression analysis was employed to analyse the data, since the assumptions of conventional regression has broken down, consequently ordinary least square (OLS) method might not be appropriate in the analysis of such dummy variable especially the dependent variable and hence, the need for logit regression (Wooldridge, 2002).

#### 4.1 Presentation of Result and Analysis.

The results of Socio-Demographic Impact of Financial Inclusion on household Home Ownership in Nigeria are presented in table 4.1.

Table 4.1: logit Regression Result of the socio-Demographic Impacts of Financial Inclusion on Home Ownership in Nigeria.

Variables	Homeownership	Marginal Effects
age	-0.061 (4.99)**	-0.013 (0.003)**
agsqr	0.001 (6.22)**	0.000 (0.000)**
female	0.017 (0.24)	0.004 (0.015)
hsize	0.152 (12.04)**	0.033 (0.003)**
secondary	-0.008 (0.09)	-0.002 (0.019)
tertiary	0.021	0.004



	(0.20)	(0.023)
NE	0.286	0.062
	(4.59)**	(0.013)**
NW	0.438	0.095
	(8.68)**	(0.011)**
SE	0.086	0.019
	(3.02)**	(0.006)**
SS	-0.036	-0.008
	(1.56)	(0.005)
SW	-0.131	-0.028
	(6.44)**	(0.004)**
rural	1.053	0.227
	(13.70)**	(0.017)**
Employment status	-0.082	-0.018
	(0.95)	(0.019)
finicclusion	-0.335	-0.069
	(3.68)**	(0.018)**
_cons	-1.298	
	(4.78)**	
Observations	4,715	
LR	-2419.75	
LR(P.Value)	0.000	
ROC	0.806	

**Note:** Standard errors in parentheses. \*\*\*, \*\*, and \* indicate significance at 1%, 5%, and 10% respectively

The study employed logit regression to analyzed the data and the results is presented in table 4.1. The robustness of the models was checked using the coefficient of Log likelihood ratio (LR), where the LR value of -2419.75;  $p <: \chi^2_{5\%} = 0.000$ ; indicates the existence of at least one predictor of home ownership in the estimated model, the overall predictive power of the exogenous variables measured by the area under the receiver operating characteristic (ROC) curve shows an excellent rate of about 80.6 percent.

The coefficient of age in model one has a negative but significant relationship with home ownership, as presented in the Table 4.1, as the age of the household head increases by 1 year, the likelihood of home ownership reduces by 6.1 percent. This is confirm by the coefficient of marginal effect in model two, which shows that age is 1.3 percent significantly more likely to increase risk of household not owning a home. This implies that in Nigeria, young individuals find it difficult to build their personal home, until they reach certain age mostly advanced or after retirement due to the high cost of building materials, low wage and unemployment and poverty. This contradicts the findings of Andrews and Sanchez (2011) and Helble and Aizawa (2016) who reported that age has positive significant impact on home ownership.

However, age square which is a measure of non-linearity of age revealed that as age of an

individual increase beyond certain age, the probability of home ownership significantly increases by 0.01 percent, this has been confirmed by the coefficient of the marginal effect which shows that increase in age beyond certain limit increase the likelihood of home ownership. This is because in Nigeria due to cost of building materials given the level of income people tend to build houses mostly after retirement with their retirement benefit. This contradict both the appriori expectation and the findings of Andrews and Sanchez (2011), who reported that increase in age beyond the productive limit is less likely to increase home ownership.

Furthermore, model one in Table 4.1 depicts an insignificant positive relationship between a female and home ownership, from the result, being a female increase the likelihood of home ownership by 1.7 percent, as confirmed by the marginal effects coefficient in model two, which shows that female is more likely to own a house. This is because in Nigeria, men are significant more likely to own a house than women, which has become norm or culture that men are head of household, hence it is their responsibilities to provide shelter, which is in line with the expectation and findings of Belke and Keil (2017) who reported that male are significantly more likely to own a house in Japan against women.

More so, the coefficient of household size shows a positive and significant relationship between household size and home ownership as presented in Table 4.1 model one, it revealed that a unit increase in household member increase the likelihood of home ownership by 15.2 percent, this is confirmed by the coefficient of marginal effect in model two that shows that increase in household membership is significantly more likely to increase home ownership by 3.3 percent. This conform to the expectation, as increase in household membership especially when they are engaged in productive activities tend to diversify household sources of income and hence, the likelihood of home ownership. This is in line with the findings of Helble and Aizawa (2016) who found same result in Japan.

Education, as shown in Table 4.1 model one, secondary education has a negative but insignificant relationship with home ownership, the result shows secondary certificate holders are 0.8 percent less likely to increase home ownership. This is confirmed by the coefficient of the marginal effects in model two which shows that having secondary education is 0.2 percent less likely to influence household home ownership. This is because secondary school certificate holders tend to have low skills, which influence their level of income especially when employed and home ownership requires huge capital outlay. However, having tertiary education though positive but insignificantly determined home ownership, tertiary education is 2.1 percent more likely to increase home ownership though insignificant because most of the tertiary education remain unemployed in Nigeria after graduation and they do not engage in self-employed activities.

Regionally, living in the North East is 28.6 percent significantly more likely to increase home ownership as confirmed by the coefficient of marginal effect in model two which shows that living in the North East is 6.2 percent more likely to increase the probability of home ownership, this due the availability of land and relatively low cost of building. Similarly, living in the North West is 43.8 percent significantly more likely to increase home ownership as



confirmed by the coefficient of marginal effect in model 2, which shows that living in the North West is 9.5 percent more likely to increase home ownership. Similarly, living in the South East is 3.6 percent significantly more likely to increase home ownership as confirmed by the coefficient of the marginal effect in model 2 which suggest that living in the South East increase the probability of home ownership by 1.9 percent.

Conversely, as shown in model 1 Table 4.1, living in the South-South is 3.6 percent significantly more likely to increase the risk of not owning a house, this is confirmed by the coefficient of marginal effects in model 2, which suggest that living in the South-South increase the risk of not owning a house by about 0.8 percent. This may be connected to the fact that their terrain is water lodge which makes it difficult to build a house. In addition, living in the South West is 13.1 percent significantly more likely to increase the risk of not owning a house as shown in model 1 in Table 4.1, this is confirmed by the coefficient of the marginal effect in model 2, which shows that living in the South West is significantly more likely to increase the risk of not owning a home by 1.8 percent. This is connected with nature of the terrain and congestion that makes it difficult to acquire the land and the terrain make it difficult to build a house.

However, household living in a rural area is 105.3 percent significantly more likely to own a house compare to the people living in urban area, this is confirmed by the coefficient of marginal effects in model 2, which suggest that living in the rural area is 22.7 percent more likely to increase the probability of home ownership. This is because of the low cost of land acquisition due to the availability of land and people mostly build mould, in addition, high cost of land and other building materials in the urban areas and couple with high cost of living compare to the rural areas, which makes it difficult for household living in the urban areas to acquire a house.

Employment status of household head on the other hand, as presented in the Table 4.1 model one shows a negative and significant relationship with home ownership, it shows that employment status more likely to increase the risk of not owning a house by about 8.2 percent. This is confirmed by the coefficient of the marginal effects which shows that employments status is more likely to increase the risk of household not to own house by 6.9 percent. This is because of the high cost of living and the low real wage, which makes it difficult for the employees to build a house as the significant percentage of their income is spent on food and daily needs, living them with little or nothing to save to acquire a house.

The coefficient of financial inclusion has significant negative relationship with home ownership as presented in Table 4.1 model 1, being financially included is 33.5 percent less likely to increase access to home ownership. This is confirmed by the marginal effects shown in model 2, which suggest that being financially included is more likely to increase the risk of not owning a house. This is because financial institutions especially deposit money banks give less priority to mortgaged finance and even when granting loan, they attached conditions, interest charged and other charges makes it difficult for client to access financial products for home ownership.

## 5.0 Conclusions and Policy Implications

Our findings presented above suggest that age, household size, geopolitical zone of habitat, living in the rural areas and access to financial services play a significant role in household decision to own a home, has a significant impact on household home ownership though the magnitude of its effect is low. To effectively increase the rate of home ownership, there is a need for government to introduce vigorous policy toward reduction of incidence of poverty through provision of mortgage finance and the financial institutions should be given more priority to mortgage finance and affordable rate.

Conversely, financial inclusion concluded to have significant impacts on home ownership though the magnitude is its impact is low. To effectively redirect households' preference to available financial services in the financial institutions, monetary authority should put in place measures in form of moral suasion or special directive to commercial banks to charge a single digit interest on mortgage loan, and real estate investors a policy that can be incorporated in the monetary policy drastically reduce interest rate to induce investors access to credit at an affordable cost as this will induce client to access credit for residential purpose.

In addition, government should embark on mass housing and plot provision at a subsidies rate especially in the urban areas, creating suburbs to reduce congestion in the urban area, and mass housing should be provided at an affordable cost, this can help household own a house at affordable cost with ease.

## References

- Africa, C. F. (2017). *Affordable Land and Housing in Africa*. Nairobi: UNON.
- Aizawa, T & Helble, M. (2017). Determinants of Tenure Choice in Japan : What Makes you a Home Owner? *ADB Working Paper*, <https://www.adbi.org/working-paper/2015/04/24/6603.health.home.ownership.japan/>.
- Andrews, D. & Sanchez, A.C. (2011). Drivers of Home Ownership Rates in Selected OECD Countries, . *ECO/WKP/2011-18*.
- Arundel, R. & Doling, J. . (2017). The End of Mass Home Ownership? Changes in the Behavior of Labor Markets and Housing Tenure Opportunities Across Europe. *Journal of Housing and Built Environment*, 32, 649-672. doi.10.1007/s/0901-017-9551-8.
- Belke, A. & Keal, S. (2017). The Impact of Uncertainty on Macroeconomic Variables: An SVAR-Based Empirical Analysis for EU Countries. *Research on Money in the Economy*. Rome: Rome Discussion Paper Series.
- Chiuri, C.M & Jappelli, T. (2011). Financial Market Imperfections and Home Ownership: A Comparative Study. *Centre for Economic Policy Research* , [www.cepr.org/pubs/dps/Dp2717.asp](http://www.cepr.org/pubs/dps/Dp2717.asp).



- Di Pasuale, D & Glaeser, E.L. (1999). Incentives and Social Capital: Are Home Owners Better Citizens? . *Journal of Urban Economics*, 45(2), 354-384.<https://doi.org/10.1006/juec.1998.2098>.
- Fama, E. (1991). Efficient Capital Markets. *Journal of Finance*, 46, 1575-1617.<https://doi.org/10.1111/j.1540-6261.1991.tb04636>.
- Gayle, G. & Miller, R.A. (2006). Life Cycle Fertility and Human Capital Accumulation. *GSIA Working Papers*.
- Haurin, R. (2002). *The Impact of Home Ownership on Child Outcome*,. USA: Joint Centre For Housing Studies, Harvard University.
- Lim, G.C, Follain, J & Renaud, B. (1979). Determinants of Home Ownership in a Developing Economy: The Case of Korea. *Urban Studies*, 17, 13-23.[usj.sagepub.com](http://usj.sagepub.com).
- Nwuba, C.C. Kalu, U.I & Umeh, J.A. (2014). Determinants of Home Ownership Affordability in Nigerias Urban Markets. *International Journal of Housing Markets and Analysis*, 8(2), 189-206.[doi:10.1108/ijhma-06-2014-0020](https://doi.org/10.1108/ijhma-06-2014-0020).
- Rohe, M.W & Steward, L.S. (1996). Home Ownership and Neighbourhood Stability,. *Housing Policy Debate*, 7(1), 37-81.<https://doi.org/10.1080/10511482.1996.a521213>.
- Tan, T. (20028). Determinants of Home Ownership in Malaysia. *Munich Personal Repec Archive*, <https://mpra.ub.uni-muenchen.de/34909>.
- Ubale, M.Y. Martin, D. & Wee, S.T. (2012). Insight of Poverty Income Line as a Determinants of Prudence Home Ownership in the 10TH Malaysian Plan. *Journal of Economic and Sustainable Development*, 3(8), 171-182. [www.iiste.org](http://www.iiste.org).