

Significance of Socio-Economic Characteristics of Residents on Informal Low-Cost Housing Development in Abeokuta, Nigeria

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Abstract: Viewpoints for, against and indifference in literature revealed that informal low-cost housing and informal settlement/housing had suffered definitional problems with underlying subjective and/or objective issues, which cannot be generalised but can be contextualised. Their emergence have been largely viewed as problem and aptly described as spontaneous, unplanned and uncoordinated development often carried out through self-help efforts without necessarily complying with the planning and building regulations and standards. Events have shown that government eviction and ineffective execution strategies have in turn helped to further fuel its growth. This suggests that, informal low-cost housing have become a phenomenon that has come to stay in Abeokuta and its environs as in other cities. The paper tries to investigate the significance of socio-economic characteristics of residents on informal low-cost housing development in Imala/Elega/Bode-Olude area of Abeokuta, Nigeria. Purposive and stratified random sampling techniques were adopted in the selection of study area and dwelling units respectively. Data collection were from literature and structured questionnaires, where quantitative and qualitative information were extracted on socio-economic, demographic characteristics of participants and construction strategies adopted from the 384 stratified randomly selected respondents. Data obtained were analysed and discussed with descriptive statistical analysis, Pearson Product Correlation Matrix; and factor analysis with extraction method of principal component analysis for the testing of related hypothesis in relation to the study objectives, hypotheses and identified variables. Findings shows that the emergence of informal low-cost housing was jointly driven by respondents' age, average annual income, education, skill, occupation and employment status; the preference for ownership of dwelling; the location, type and status of the respondents' former. The paper made recommendations and concludes that socio-economic characteristics of the residents are vital factors in the formulation, implementation and performance evaluation of housing policies, strategies and programmes; their weak, negative and imperfect significant relationship with the construction strategies adopted notwithstanding.

Keywords: *significance; socio-economic; informal housing; development; characteristics; strategies*

I. INTRODUCTION

The emergence and spread of informal low-cost housing in Nigerian cities as in other developing countries had been traced to the rapid population growth, high rural-urban migration, urbanisation and inadequate housing supply to meet the demand, especially by the poor majority. UN (2009) revealed a number of names, either colloquial or as connotation or description by which informal low-cost housing has severally been used interchangeably by researchers with informal housing. Literatures revealed that the provision of affordable housing for the citizenry as the principal focus of every successive government in Nigeria, because of its necessity to human lives and the pivotal roles it plays in National development and growth.

Viewpoints for, against and indifference further revealed that housing and housing development have suffered from definitional problems with underlying issues, which cannot be generalised but can be contextualised and aptly classified as formal and informal housing. Serra (2003) described it as an integral part of the urban landscape and a testimony of the poor's ingenuity. Hasan, (1998) and UN (2009) also revealed it as a phenomenon fairly homogeneous in nature, complex and diverse in manifestation that solutions could not be generalised but needed to be context-specific. What can probably be deduced or inferred from many of the definitions aptly describes informal low-cost housing or informal housing as a spontaneous, unplanned and uncoordinated emergent development often carried out through self-help efforts without necessarily complying with the planning and building regulations or building codes and standards.

They have been severally noted to be characterised by add-on structures, defective design and structural failures; defective material choice and application; insecure tenure-ship; poor access to basic infrastructures and services; unhealthy living conditions and a social exclusion seeming to be under threat of demolition. The foregoing therefore revealed that most literature are based on subjective and/or objective issues which have largely viewed informal low-cost housing as a problem using survey method in examining a wide range of issues bordering on slum, squatter and informal settlement and deplorable conditions.

Events have also shown that government eviction approach to informal settlements and ineffective execution strategies have in turn helped to fuel the growth of informal settlements or its expansion at a more complex dimension (Morka, 2007). Attempts by Nigeria government sometimes between 1972-1979 at addressing the housing problems of squatter settlements/slums (in Idimagbo, Ijora-Badia, Isale-Eko, Apapa, Maroko, Surulere, Ikoyi and Victorial Island) areas of Lagos, Nigeria had adopted clearance of such informal settlements and displacement of the residents to give way for the construction of new roads and bridges, re-development, site-and-services; and upgrading strategies (Abiodun, 1985; and George, 1999).

This also resulted into reduction in the size of available plots of land for residential development, high cost of land and high cost of implementation. It further led to proliferation of the erection of more temporary housing scheme which later became permanent dwellings for the displaced residents; and as such opened up the areas as high and low density areas of Lagos (Omole, 2000). Hence, the inadequacy of the capacity of public agencies to deliver housing was one of the key challenges of housing in Nigeria (Bana, 1991 and Emerole, 2002), which must have perhaps, prompted the poor urban dwellers to drift into the available low cost land in the peripheral-urban areas compared to what is obtainable at the inner city or urban centres and thus the emergence and proliferation of informal settlements by the low income households.

This therefore suggests that, informal low-cost housing have become a phenomenon that has come to stay in Abeokuta and its environs as in other cities. This position is instructive because, people in the informal housing naturally want better accommodation but are probably constraint and accepts the prevailing circumstances, as their need for shelter varies in scope and adaptable to economic and family needs, therefore, resulting into self-help development of houses.

It further suggests that, informal low-cost housing provides opportunity for development that can accept socio-economic and cultural changes without the need for translocation, if properly harnessed and productively deployed for low cost housing development through intervention. The pertinent question is that, "should this scenario of informal low-cost housing be totally eliminated or formalised or upgraded?" It therefore suggest a paradigm shift in approach and attitude, whereby government/ authorities and all stakeholders necessarily need to appreciate and offer support to the local people who are attempting to build by themselves, while lifting informality out of the sphere of the illegality through intervention.

Informal low-cost housing in the context of this study is defined as residential buildings (either completed or uncompleted, but excluding uninhabited buildings) built on planned and unplanned areas, owned predominantly by individuals within the study area and do not have formal development permit or approval. It is in this stead, seen as problem and solution, hence the need to investigate the significance of socio-economic characteristics of residents of informal low-cost housing development in Imala/Elega/Bode-Olude area of Abeokuta, Nigeria.

1.1 AIM AND OBJECTIVES

The aim of the paper is to determine the extent to which the construction strategy adopted is influenced by the socio-economic characteristics of the residents.

The objectives are to:

- (i) identify the socio-economic characteristics of residents of existing informal low-cost housing developments in the selected study area;
- (ii) identify the factors responsible for the emergence of informal low-cost housing in the selected study area;
- (iii) assess the extent to which the socio-economic characteristics of residents influenced the construction strategy adopted.

1.2 HYPOTHESIS

H₀1: There are no significant factors responsible for the emergence of informal low-cost housing

H₀2: There is no significant relationship between socio-economic characteristics and the construction strategy adopted

1.3. THE STUDY AREA

Imala/Elega/Bode-Olude, the study area, is within the capital city of Abeokuta. Abeokuta is the capital city Ogun State Nigeria, covering a landmass of about 350 square kilometres with about 60% of its settlements rural, semi-rural and peripheral urban in nature (Ogun State Government, 2008). The study area is characterised by development of clustered buildings/settlements at the southern part of the main city centre, which are predominantly residential with pockets of commercial and cottages/small-scale industrial buildings along the major roads at the periphery of the city centre. It is made up of ten (10) Wards, 5 contiguous villages, about 500 interwoven clans, about 53,184 buildings, with an average population of about 567,618 (FRN, 2009), and falls within the urban fringes of Abeokuta, Ogun State, Nigeria.

In Imala/Elega/Bode-Olude, there resides the main source of pipe-borne water supply to the entire Abeokuta Township, presence of public/private socio-economic amenities/facilities and the extension of the campus of the Federal University of Agriculture, Abeokuta. It also consists of tributaries (i.e. major rivers and reservoirs of Oyan, Ogun and Osun), a large percentage coverage of agrarian land/vegetation. The inhabitants are mostly Nigerians of mixed tribes/ethnics from Egba, Ijebu, Yewa, Awori, Anaago, Egun, Ibadan, Offa, Igbo, Hausa/fulani, Igede and Edo extractions. The quality of life and inter-relationships of inhabitants, as well as their activities have, over time, brought about inter-tribal or inter-cultural marriages, which have further generated interest of the people in the area and as such gave rise to demand for land beyond its availability in the core parts of the study area.

The study area is exposed to concomitant pressure of population influx, urban drift, changes in socio-economic activities, infrastructural inadequacies, emergence of informal low-cost housing/settlement and other attendant effects of the consequential characteristic of an ever expanding State capital. It is therefore, not unusual to see proliferation of unplanned settlements, streets and dysfunctional development as people's survival reactions.

The study area has been chosen due to its apparent fast growing pattern of informal low-cost housing development in the area, arising from the growing presence of public educational and health institutions and the concomitant increase in the socio-economic activities of the inhabitants.

II. OVERVIEW OF FACTORS RESPONSIBLE FOR THE EMERGENCE OF INFORMAL HOUSING

Arayela (2002) and many other authors asserts that there is inadequate housing stock to cope with the ever-increasing population and the available housing facilities in Nigeria. Bana (1991) and Emerole (2002) posited that, the inadequacy of the capacity of public agencies to deliver housing was one of the key challenges of housing in Nigeria. Mukhija (2004) had also noted that, there has been little consensus on the strategies and approaches government should follow in addressing the housing need of their citizens. This must have been responsible for the increasing housing deficit in Nigeria (Emerole, 2002 and Oladapo, 2002) The deductions that can possibly be drawn from similar studies of Olotuah 1997; Nkwogu, 2001; Arayela, 2004; Adegbehingbe, 2011; Olotuah 2005, 2015; Jha, 1986; Srivinas, 2005; Taylor 2011; Turner, 1974, 1976; Tipple, 1987 and Myers, 2011 suggests that conditions of urban housing in Nigeria, Bangladesh and developing countries are very deplorable, in spite of public sector intervention. Olotuah (2005) and Olotuah and Taiwo (2015) also opined that 75% of the dwelling units in urban centres are substandard and the dwellings are sited in slums.

Reazul and Quamruzzamam (n.d.), as cited by Taylor (2011) opined that the urban population of developing countries is increasing at an alarming rate. The resulting feature of this trend is the proliferation of informal housing development in cities of developing countries. Scholz (2005) reiterated that, rapid increase in the urban population and the limited capacity of the government to meet the high demand for building plots has led to mushrooming of the informal settlements.

Turner (1968) as cited by Taylor (2011) was certainly not the first to discover the inherent value of self-help housing, but his work has become indispensable to the architectural discourse on informality because of his background and education within the field. His knowledge and beliefs were cultivated amidst the urban musings of such early theorists as Patrick Geddes and Lewis Mumford (1902-1980), who touted small-scaled, owner-involved levels of community development.

People choose or find themselves living in informal low-cost housing as a result of their inability to afford any rent and obligation free accommodation ((Pugh, 2000 and Sivam, 2003) on one hand, and their respective desperate need of a family shelter and their inability to wait for the site allocation systems as obtainable through the formal system on the other hand (Tsenkova, 2009 and Azzan et al, 2005). Thus, the emergence and proliferation of informal settlements, which are largely embraced by the low income households. However, Sivam, 2003; Olsen, 2003; Arnott, 2008 and Taylor, 2011 posited that informal low-cost housing seems to match affordability and free of long-term financing obligations; offers the opportunity of being closer to the design and building process, which could form the basis of enhancement and upgrading. Similarly, Taylor (2011) opined that the UN-Habitat Reports (2009) states that slums do in fact encompass several positive elements, such as:

- 1) The provision of the possibilities of inclusion into urban society and of upward social mobility for immigrants;
- 2) The provision of opportunity for a community-wide improvement based upon unified movements to achieve economic opportunity and municipal representation as a consequence of its impermanence nature;
- 3) Provides opportunity for the emergence of innovative and pragmatic building solutions, which are valuable to the study of architecture and urbanism as a whole.

These suggest that, it requires an investigation into the development pattern, implications of socio-economic characteristics and factors that are responsible for the emergence of informal low-cost housing in Abeokuta, Nigeria.

2.1. CHARACTERISTICS OF BUILDING CONSTRUCTION STRATEGIES AND MODE OF DEVELOPMENT OF INFORMAL HOUSING

Informal low-cost housing are characterised by poor ventilation, poor lighting, overcrowding and high density of population, lack of potable water and regular electricity supply, sanitation, waste disposal, road network and park, (Ali, 2006 and Bose, 1995). Formation of squatter settlements are result of influx of migrants to either settle into large scale peripheral or move into undeveloped pockets of land within the central areas or start settlement along railway lines, roads or rivers without quality housing stock and lacked basic services (Llyod, 1979).

The selected study area of Abeokuta reveals a development pattern characterised by temporary structures, partially completed and inhabited dwellings, as well as uncompleted and uninhabited dwellings built on planned and unplanned areas and/or largely without statutory development permit. It also reveals an area with dilapidated and poorly defined road network and street drains; undefined and uncoordinated waste disposal, water and electric power supply strategy as shown in plates 1-4, which is in line with the positions of Lloyd (1979); Blitzer, Hardoy and Satterthwaite (1981) and Uji (1994) in their related studies on spontaneous settlement phenomenon of the Third World Cites; as well as those of Agbola (1998); Olotuah (1997, 2000, 2001 & 2005) on the deplorable conditions of dwelling units in most urban centres where informal low-cost housing are developed.



1a



1b

Plates 1(a-b): Views of dwellings with temporary structures for ancillary and socio-economic activities, partially completed and inhabited dwellings without defined street drains



2a.



2b.

Plates 2(a-b): Views of mixed-use dwellings/structures constructed with bricks/block and used building materials from the neighborhood without compliance with the building regulations/standard



3a



3b

Views of partially completed and inhabited dwelling with poorly aligned road network electrical and water supply strategy



4a. *View of unsightly dump of refuse in gutter/water drains inappropriate refuse disposal method*



4b. *View of uncoordinated and*

Plates 4 (a-b): Views of uncompleted, partially and completed but inhabited dwellings with undefined and uncoordinated wastes disposal, poorly aligned road network, electrical and water supply strategy.

III. RESEARCH METHODOLOGY

The study adopts survey approach with the use of structured questionnaires to extract quantitative and qualitative opinions. The study population is all residential buildings, inhabited or owned predominately by individuals in the defined space either completed or uncompleted. The research population projection of 338,728 was used (i.e. at the rate of 3.18%) based on the FRN, (2009) figure of 247,549 for the coverage area of study (Abeokuta).

Due to the total population size, spread and coverage of the study area; the spread of respondents; lack of reliable data on the number of existing buildings; and the limited time, the sample frame has been limited to owners and/or occupants of the estimated 53,184 building developments in the study area, either completed or uncompleted. This was determined from an updated cartographic map of the area (2016), upon which information were taken from the adult-occupants above the age of twenty-four (24) years, who presumably have at least, reasonable knowledge and control over their dwellings or could conceivably be in the position to take any decision on or control over the process of its production and/or any form of physical intervention in the state of dwellings.

In the determination of the sampling size for this study, the established America Marketing Association, (AMA 2007-2012) sampling size calculator was adopted and applied, using the total projected population of household-heads/tenant-occupants, at a confidence level and confidence interval of 95% and 5 respectively. The total projected population figure of 338,728 was then imputed into the calculator after which, an expected sampling size of 384 was arrived at. A purposive sampling technique and stratified random sampling technique was adopted in the selection of study area and dwelling units respectively. The dwelling units for the study are uncompleted and completed buildings that are already inhabited.

The collection of information was from relevant literature and use of structured questionnaires from where quantitative and qualitative information were elicited on socio-economic and demographic characteristics of participants and construction strategies adopted from the 384 stratified randomly selected respondents. The method of data analyses employed involved the use of descriptive statistical analysis (i.e. computation of frequencies and percentages using cross-tabulations, figures and charts), Pearson Product Correlation Matrix, factor analysis with extraction method of principal component analysis for the testing of related hypothesis. The data gathered were thereafter reviewed, discussed and presented in relation to the study objectives, hypotheses and identified variables.

IV. RESULTS AND DISCUSSION

The results of data collected on the Socio-economic and demographic characteristics of the respondents as presented in tables 1(a-j) are discussed in relation to the study objectives, hypotheses and identified variables. Tables 1 (a-b) shows the cross-tabulations of respondents' age and sex. Tables 1 (c-d) shows the cross-tabulations of respondents' education status and occupation type. Tables 1(e-h) shows the cross-tabulations of respondents' average income, location, type and status of previous dwellings. Tables 1(i-j) shows the cross-tabulations of respondents' reason for leaving previous dwellings and attraction to current land/dwellings. The summary of findings shows that:

- i) About 317 (82.5%) out of the 384 nos. administered questionnaire were retrieved, which is reasonable and good for statistical analysis;
- ii) About 90.8% of the respondents falls within a very active middle aged adult of between 25 and 50 years.
- iii) Sex/gender is not necessarily a significant factor responsible for the emergence of informal housing in the study area;
- iv) About 86.5% of the respondents possesses at least basic education and/or skills; and that about 91.5% are gainfully engaged in trades/business, artisanship and non-skilled labour while about 20(6.3%) are not employed being pensioners/retirees.
- v) The respondents are relatively informed, with skills and are reliable sources for extracting the required quantitative and qualitative information.
- vi) About 82% of the respondents earns average annual income within ₦50,000:00 – ₦150,000:00, while about 18% earns average income of over ₦150,000:00 per annum.
- vii) About 167(52.7%) and 105(33.1%) of the respondents had their previous residences located in the core-city and village within the city/township respectively; while about 34(10.7%) had theirs located at the peri-urban
- viii) The respondents type of former dwellings were predominantly that of (about 70.7%) rented home/houses;
- ix) The status of the respondents' respective former dwellings composed of about 126 (39.7%) renovated, 123 (38.8%) new and 62(19.6%) old/dilapidating buildings respectively;
- x) Most of the respondents (about 59.9%) were attracted to the current land/building location by affordable consideration/cost of land acquisition.

It therefore suggests, that, the emergence of informal low-cost housing was mostly and jointly driven by the respondents' active age of between 25-50 years; average annual income, education, skill, occupation and employment status; the preference for ownership of dwelling; the location, type and status of the respondents' former. Thus, the socioeconomic characteristics of residents of the existing informal low-cost housing developments in the selected study area of Abeokuta, Nigeria.

Tables 2 (a-b) reveals the results of the test of hypothesis 1, using factor analysis with extraction method of principal component analysis with respect to Objective I and II, related identified dependent and independent variables. The communalities therewith in table 2 shows high estimates of the variance in each variable except for the Building location, which indicates that the extracted components represent the variables very well.

Table 2(a): Factor Analysis with Extraction Method of Principal Components

Communalities ^a		
Variables	Initial	Extraction
Highest education attained	1.000	.723
Reason for leaving the former dwelling	1.000	.889
What attracted you to the current land/building location?	1.000	.884
Type of household	1.000	.972
Average annual income	1.000	.663

Type of building	1.000	.716
Location of building	1.000	.311
Nature of the building	1.000	.926
Purpose for which the building was constructed	1.000	.957
Tenure-ship status	1.000	.700
Household size	1.000	.801
Type of ownership	1.000	.733

Extraction Method: Principal Component Analysis.^a

a. Only cases for which CONSTRUCTION STRATEGY ADOPTED = Self-help and participatory/communal approach are used in the analysis phase.

Table 2(b) shows the total variance explained table, with the total column in the initial eigen-values indicates eigenvalue or amount of variance in the original variables accounted for by each component. The % of variance column gives the ratio, expressed as a percentage of the variance accounted for by each component to the total variance in all of the variables. The cumulative % column gives the percentage of variance accounted for by the first *n* components. Therefore, the initial solution reveals that, there are as many components as variables; and in a correlations analysis, the sum of the eigenvalues equals the number of components.

Consequent upon that, the eigenvalues greater than 1 was extracted, thus making the first four principal components (i.e. the highest education attained, reason for leaving the former dwelling, attraction to the current land/building location; and household type) to form the extracted solution.

The second section of the table 2(b) shows the extracted components which reveals about 77% of the variability in the original twelve (12) variables. This informed the considerable reduction in the complexity of the data set by using these components with a 23% loss of information. The rotation in this stead maintains the cumulative percentage of variation explained by the extracted components. The variation was however noted to have spread more evenly over the components.

Table 2(b): Factor Analysis of Total Variance with Extraction Method of Principal Components
Total Variance Explained^a

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	3.403	28.359	28.359	3.403	28.359	28.359	3.008	25.067	25.067
2	3.072	25.599	53.958	3.072	25.599	53.958	2.882	24.013	49.080
3	1.694	14.116	68.074	1.694	14.116	68.074	2.038	16.984	66.064
4	1.105	9.208	77.282	1.105	9.208	77.282	1.346	11.218	77.282
5	.969	8.076	85.358						
6	.686	5.719	91.077						
7	.491	4.093	95.171						
8	.361	3.005	98.176						
9	.150	1.250	99.426						
10	.069	.574	100.000						
11	1.000E-013	1.003E-013	100.000						
12	-1.002E-013	-1.013E-013	100.000						

Extraction Method: Principal Component Analysis.

a. Only cases for which CONSTRUCTION STRATEGY ADOPTED = Self-help and participatory/communal approach are used in the analysis phase. **Source:** Researcher’s Computation, 2016

Tables 2(c-g) shows the analysis of data for objective II and testing hypothesis I with Component Matrix, Rotated Component Matrix, Component Transformation Matrix, Component Score Coefficient Matrix and Component Score Covariance Matrix against the independent variables (extracted principal components) and the dependent variable (construction strategy adopted). The Rotated Component Matrix table 2(d) shows that the first component is highly correlated with “Purpose for which the building was constructed”, the second component is most highly correlated with “Household size”, the third component is most highly correlated with “Attraction to the current land/building location” while the fourth component is most highly correlated with “Type of household”.

Thus, the null hypothesis (H01) is rejected, while the alternative hypothesis (Ha1) is accepted. This suggests that, the purpose for which the building was constructed; Household size; Attraction to the current land/building location; and Type of household are significant factors responsible for the emergence of informal low-cost housing.

Table 2(c): Factor Analysis of Component Matrix with Extraction Method of Principal Components
Component Matrix^{a,b}

	Component			
	1	2	3	4
Highest education attained	-.422	-.677	.294	-.014
Reason for leaving the former dwelling	.858	-.228	.075	.307
What attracted you to the current land/building location?	-.036	-.264	.889	-.154
Type of household	-.232	.491	-.020	.823
Average annual income	-.706	.332	.099	-.210
Type of building	-.136	.695	-.387	-.255
Location of building	.334	-.151	-.405	.108
Nature of the building	.747	.440	-.181	-.377
Purpose for which the building was constructed	.707	.488	.457	.095
Tenure-ship status	.275	-.749	-.230	.102
Household size	-.513	.678	.236	.151
Type of ownership	.638	.429	.371	-.063

Extraction Method: Principal Component Analysis.^{a,b}

a. 4 components extracted.

b. Only cases for which CONSTRUCTION STRATEGY ADOPTED = Self-help and participatory/communal approach are used in the analysis phase.

Table 2 (d) : Factor Analysis of Rotated Component Matrix with Extraction Method of Principal Components
Rotated Component Matrix^{a,b}

	Component			
	1	2	3	4
Highest education attained	-.547	-.064	.633	-.136
Reason for leaving the former dwelling	.524	-.774	.091	.083
What attracted you to the current land/building location?	.211	.165	.884	-.178
Type of household	.029	.182	-.149	.957
Average annual income	-.291	.760	-.002	.022
Type of building	.124	.496	-.674	-.025
Location of building	-.008	-.463	-.310	-.017
Nature of the building	.732	-.132	-.499	-.351
Purpose for which the building was constructed	.964	-.046	.076	.142
Tenure-ship status	-.296	-.748	.136	-.185
Household size	.069	.775	-.043	.441
Type of ownership	.855	-.012	.024	-.017

Table 2(e): Factor Analysis of Component Transformation Matrix with Extraction Method of Principal Components

Component Transformation Matrix^a

Component	1	2	3	4
1	.737	-.643	-.129	-.163
2	.530	.629	-.482	.302
3	.414	.290	.862	.045
4	-.063	-.328	.091	.938

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Only cases for which CONSTRUCTION STRATEGY ADOPTED = Self-help and participatory/communal approach are used in the analysis phase.

Table 2(f) Factor Analysis of Component Score Coefficient Matrix with Extraction Method of Principal Components

Component Score Coefficient Matrix^a

	Component			
	1	2	3	4
Highest education attained	-.135	-.004	.271	-.050
Reason for leaving the former dwelling	.148	-.287	.067	.200
What attracted you to the current land/building locaton?	.173	.151	.482	-.131
Type of household	-.017	-.103	-.011	.758
Average annual income	-.060	.281	.008	-.110
Type of building	.010	.177	-.322	-.152
Location of building	-.059	-.196	-.186	.050
Nature of the building	.215	.030	-.220	-.317
Purpose for which the building was constructed	.344	.016	.137	.107
Tenure-ship status	-.132	-.275	-.002	-.006
Household size	.055	.231	.046	.226
Type of ownership	.307	.050	.092	-.032

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Component Scores.^a

a. Only cases for which CONSTRUCTION STRATEGY ADOPTED = Self-help and participatory/communal approach are used in the analysis phase.

Table 2(g): Factor Analysis of Component Score Covariance Matrix with Extraction Method of Principal Components

Component Score Covariance Matrix^a

Component	1	2	3	4
1	1.000	.000	.000	.000
2	.000	1.000	.000	.000
3	.000	.000	1.000	.000
4	.000	.000	.000	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Component scores.^a

a. Only cases for which CONSTRUCTION STRATEGY ADOPTED = Self-help and participatory/communal approach are used in the analysis phase.

Source: Researcher's Computation, 2016

Tables 3 (a-b) reveals the results of correlation matrix analysis relating to hypothesis II (**H₀₂**: There is no significant relationship between socio-economic characteristics and the construction strategy adopted) with respect to Objective II (determine the factors responsible for the emergence of informal housing in the selected study area), the identified dependent and independent variables.

Table 3(a) shows that the socio-economic characteristics is a linearly transformed variable of Average annual income, location of household's previous residence, type of former dwellings, status of former dwelling, consideration paid for the occupation of previous building/month, rent paid per month, reason for leaving former dwelling, attraction to the current land/building location, type of household, household size and household composition. The bivariate correlations matrix table 3(a) also shows the Pearson correlation value of -0.142 with a Sig. (2-tailed) value of 0.472 which implies that there is an insignificant weak negative imperfect relationship between socio-economic characteristics and the construction strategy adopted. However, table 3(b) further shows that, of the individual social-economic characteristics only type of household, household number of children and household number of wife (ves) have negative effect on the construction strategy adopted. Thus, rejecting the null hypothesis (**H₀₂**), while the alternative hypothesis (**H_{a2}**) is accepted.

Table 3(a): Correlation Matrix Analysis

		Socio-economic Characteristics	Construction Strategy Adopted
Socio-economic Characteristics	Pearson Correlation	1	-.142
	Sig. (2-tailed)		.472
	N	28	28
Construction Strategy Adopted	Pearson Correlation	-.142	1
	Sig. (2-tailed)	.472	
	N	28	314

Table 3(b): Paired Correlation Matrix Analysis

Socio-economic Characteristics		Construction Strategy Adopted
Average Annual Income	Pearson Correlation	.025
	Sig. (2-tailed)	.662
	N	312
Location of Household's Previous Residence	Pearson Correlation	.093
	Sig. (2-tailed)	.108
	N	303
Type of former dwellings	Pearson Correlation	.038**
	Sig. (2-tailed)	.504
	N	309
Status of former dwelling	Pearson Correlation	.054
	Sig. (2-tailed)	.345
	N	308
Consideration paid for the occupation of building/month	Pearson Correlation	.048
	Sig. (2-tailed)	.408
	N	304
Rent paid per month	Pearson Correlation	.154**
	Sig. (2-tailed)	.011
	N	274
Reason for leaving the former dwelling	Pearson Correlation	.073
	Sig. (2-tailed)	.200
	N	308
What attracted you to the current land/building location?	Pearson Correlation	.238*
	Sig. (2-tailed)	.000
	N	306
Type of household	Pearson Correlation	-.133**
	Sig. (2-tailed)	.029
	N	268
Household size	Pearson Correlation	.056**
	Sig. (2-tailed)	.363
	N	262
Household number of children	Pearson Correlation	-.041
	Sig. (2-tailed)	.563
	N	202
Household number of wife(ves)	Pearson Correlation	-.206*
	Sig. (2-tailed)	.005
	N	182
Household number of relations	Pearson Correlation	.094
	Sig. (2-tailed)	.493
	N	56

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Source: Researcher's computation 2016

V. RECOMMENDATION AND CONCLUSION

The study has generally elicited information to engender better understanding of the inherent value(s) in informal low-cost housing and the significance of socio-economic characteristics for low-cost housing, especially for the urban poor. It has also revealed the re-interpretation of the significance of socio-economic characteristics of the residents in the study area away from the negative perceptions and its implications for the development of low-income housing delivery strategies, through which the housing supply can be increased.

The study has further shown that informal low-cost housing development could positively impact on the housing delivery for the urban poor in Nigeria with governmental and professional interventions. The paper therefore advocates for inclusive interventions in the areas of formulation of appropriate regulatory framework, policies, strategies and development plans/programmes that will seek to promote and ensure the integration of informal low-cost housing towards increasing the housing supply that is decent, healthy, safe and affordable, without necessarily translocating the subsisting residents. The paper concludes that socio-economic characteristics of the residents are vital factors in the formulation, implementation and performance evaluation of housing policies, strategies and programmes; their weak, negative and imperfect significant relationship with the construction strategies adopted notwithstanding.

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APPENDIX

Table 1 (a-j): Frequencies of the Socio-economic and Demographic Characteristics of the Respondents

a) **AGE**

Age	Frequency	Percent
25 – 30 years	74	23.3
31 – 40 years	122	38.5
41 – 50 years	92	29.0
Over 50 years	24	7.6
Total response	312	98.4
No response	5	1.6
Total retrieval	317	100.0

Source: Researcher's Computation, 2016

b) **SEX**

<i>Sex</i>	<i>Frequency</i>	<i>Percent</i>
Male	162	51.1
Female	148	46.7
Total response	310	97.8
No response	7	2.2
Total retrieval	317	100.0

Source: Researcher's Computation, 2016

c) **HIGHEST EDUCATION ATTAINED**

<i>Highest Education Attained</i>	<i>Frequency</i>	<i>Percent</i>
No Basic Education	22	6.9
Primary Education	52	16.4
Post-Primary Education	77	24.3
Post-Secondary Education	108	34.1
Trade/Craftsmanship	37	11.7
Total response	296	93.4
No response	21	6.6
Total retrieval	317	100.0

Source: Researcher's Computation, 2016

d) **TYPE OF OCCUPATION**

<i>Type of Occupation</i>	<i>Frequency</i>	<i>Percent</i>
Trader/Business	138	43.5
Artisan/Skilled worker	121	38.2
Non-skilled labourer	31	9.8
Pension/Retiree	20	6.3
Total response	310	97.8
No response	7	2.2
Total retrieval	317	100.0

Source: Researcher's Computation, 2016

e) **AVERAGE ANNUAL INCOME**

<i>Average Annual Income</i>	<i>Frequency</i>	<i>Percent</i>
Below N50,000	33	10.4
>N50,000 and <=N100,000	92	29.0
>N100,000 and <=N150,000	101	31.9
>N150,000 and <=N200,000	40	12.6
>200,000	49	15.5
Total response	315	99.4
No response	2	.6
Total retrieval	317	100.0

Source: Researcher's Computation, 2016

f) **LOCATION OF HOUSEHOLD'S PREVIOUS RESIDENCE**

<i>Location of household's previous residence</i>	<i>Frequency</i>	<i>Percent</i>
Village within the city/township	105	33.1
Core-city	167	52.7
Peri-urban	34	10.7
Total response	306	96.5
No response	11	3.5
Total retrieval	317	100.0

Source: Researcher's Computation, 2016

g) **TYPE OF FORMER DWELLINGS**

<i>Type of Former Dwellings</i>	<i>Frequency</i>	<i>Percent</i>
Employer's Accommodation	14	4.4
Rented home	224	70.7
Relation/Family home	74	23.3

Total response	312	98.4
No response	5	1.6
Total retrieval	317	100.0

Source: Researcher's Computation, 2016

h) STATUS OF FORMER DWELLINGS

Status of Former Dwellings	Frequency	Percent
Old/dilapidating building	62	19.6
Renovated building	126	39.7
New building	123	38.8
Total response	311	98.1
No response	6	1.9
Total retrieval	317	100.0

Source: Researcher's Computation, 2016

i) REASON FOR LEAVING THE FORMER DWELLING

Reason for leaving the Former Dwellings	Frequency	Percent
Ownership preferred to tenancy	77	24.3
High rent value	156	49.2
Ejection/displacement arising from the on-going urban renewal/expansion	22	6.9
Location of work and business interests	56	17.7
Total response	311	98.1
No response	6	1.9
Total retrieval	317	100.0

Source: Researcher's Computation, 2016

j) WHAT ATTRACTED YOU TO THE CURRENT LAND/BUILDING LOCATION?

What attracted you to the current land/ building location?	Frequency	Percent
Availability of and access to pool of land for farming	31	9.8
Affordable consideration/cost for land acquisition	190	59.9
Proximity to community market, fadama, and socio-economic activities	52	16.4
Proximity to communal activities for significant income enhancement	26	8.2
Potential for viable communal participation and development	10	3.2
Total response	309	97.5
No response	8	2.5
Total retrieval	317	100.0

Source: Researcher's Computation, 2016