

## Housing Preferences and Choice in Emerging Cities of Developing Countries

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### ABSTRACT

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Housing is ranked second as a basic human need after food. Generally, there is inadequate housing both in the rural and urban centres in most of the developing countries. The issue of housing quality seems to be common in the rural areas whereas the major housing problem in urban areas is more of insufficient supply from which the people can make choices. In any preference and choice situation, certain underlying motivational factors make it possible for an individual to evaluate available alternatives. Preferences and choices are dynamic operational activities individuals make based on changing circumstances and situations. The study examines housing choices and preferences within the Nigerian housing delivery systems. The study employed quantitative method of data collection. A total of 434 questionnaires were distributed to selected households in the South West, geopolitical zone of Nigeria. The analysis was based on 359 retrieved questionnaires that represented 82.7 percent response rate. Descriptive statistics, relative importance index and regression analysis was used for the analysis. Using relative importance index, the study found out that 41 percent of the respondents preferred 3 bedroom flat with a relative importance index of 0.74, followed by 2 bedrooms flat with RII of 0.64, self-contain with RII of 0.61. The study also revealed that the state of the national economy plays a prominent role in individual's housing preferences and choices and increasingly a large number of Nigerians find housing to be beyond the family budget. The authors are also of the opinion that policy measures that incorporate the design of low-cost social housing and the creation of conducive environment for developers such as the granting of tax break and provision of subsidy may promote a better housing delivery system. Consideration of user preferences for housing is a requirement to meeting and satisfying housing needs.

#### Keywords:

Preference, choice, south-west, housing,  
relative importance indices

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## 1. Introduction

Preferences and choices are dynamic operational activities individuals make based on changing circumstances and situations. There are crucial motivations that make it possible for a man to settle on a final choice for a given product. Studies on residential housing choice have built up a long

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convention of clarifying housing choices in line with households' socio-economic attributes such as age, family unit, wages and current housing circumstance [1].

Accessibility to housing is one of the major and growing problems in countries of Africa. The issue of housing the urban populace especially the less-privileged of the society is a fundamental issue facing most developing countries in the contemporary time. Although studies, by various researchers have shown that housing problem is worldwide, however it is of greater scale in the developing countries around the world [2]. Housing problems are largely due to affordability; housing choice and preferences due to high cost of constructions, and low income. Faced with few other options, vast numbers of households live in sub-standard housing, in slums and informal settlements because they cannot access better quality housing at affordable prices. In many cases, they pay an enormous share of their income for such housing, and this further impoverished them. The urgent task is to make the urban housing sector in both large and small African cities function more effectively to increase access to affordable housing, especially for low and medium income households [3]. Nubi [4] noted the importance of housing and averred that, it is one of the basic needs of man due to his desire for security, privacy and protection from negative impacts of the environment.

The main objective of this paper is to investigate the housing types that the households prefer and which include not only tenure choice, which has traditionally been the subject of analysis, but also other housing characteristic choices. Going by the theory of self-congruity it is predicated that households are likely to take into account both the functional and symbolic aspects in their housing choice. In addition, functional aspects of the home may be interpreted in the light of the symbolic aspects – perceived consistency with the household's self-image.

The family's choices over dwelling size and quality can be estimated at levels of hierarchy using the Relative Importance Indices (RII) and on the choices which are made prior to the developers and the government in the preparation and implementation of housing policies and programme. Relative importance indices provides much greater insight than the conventional tenure choice study regarding the effects of income, relative prices and other socio-economic variables on the family's housing choices. Tenure choice has been conventionally viewed as determined by permanent income, the cost of owning relative to renting and household life cycle attributes. This method can be further strengthened, in order to provide a superior tool for designing effective housing policy.

## 2. Materials and Methods

As in other social sciences research, the data for this study were obtained through the primary and secondary sources. The primary data were obtained by quantitative methods through the use of a structured questionnaire. The use of questionnaire has become prominent as a means of collecting data and this however has been associated with researchers in business management and other areas of the social sciences [5].

The participants were drawn from households within the South-western Nigeria. A total of 15 metropolitan local government areas from Lagos, Oyo, and Ekiti States were chosen as shown in Figure 1. The region of South west is home to two of Nigeria's three largest cities: Lagos and Ibadan. National Bureau of Statistics [6], estimated the population of South west Nigeria at 32.5 million people and formed about 21 percent of the national population.

The South western part of the country is dominated by the Yoruba ethnic group. Lagos has a population of 9,000,000 making it the biggest city in Lagos. Ibadan a city in Oyo State and has a population of 3,565,108 making it the biggest city in Oyo State. Ado-Ekiti, the capital city of Ekiti

State has a population of 424,340. Multi stage systematic random sampling technique was adopted to select the participants' households. A total of 434 questionnaires were distributed from which 359 (82.7.9 percent response rate) were retrieved for the purpose of analysis.



Fig. 1. Map of Nigeria showing the sampling locations in Southwest Nigeria [8]

Various approaches have been suggested for measuring preferences, which range from simple direct questioning of respondents to a more complex measurement approach such as the conjoint analysis. The conjoint analysis method enables a researcher to test the basis underlying their measurement approach. Orzechowski [7] describes conjoint analysis as a measurement approach by which users are requested to indicate their preferences for attribute profiles which have been in accordance with an experimental design.

The data obtained has Cronbach Alpha of 0.522. Although, Tanko *et al.*, [9] noted that results of reliability and validity test is highly statistical significant when the values obtained are higher than the recommended minimum value of 0.60. In a related development, Toyin *et al.*, and Hair *et al.*, [10, 11] argued that Cronbach's alpha coefficient values of 0.50 and above were considered sufficiently reliable and good internal consistency for an exploratory study. The data collected were analysed using SPSS 22.0 version and descriptive analysis was used to present the profile of the participants. Relative Importance Index (RII) or weight was employed in the analysis of the choice and preferences of house types by the participants. RII was used for the analysis because it best fits the purpose of this study. Johnson *et al.*, [12] noted that RII helps in finding the contribution a particular variable makes to the prediction of a criterion variable both by itself and in combination with other predictor variables.

### 3. Literature Review

Housing is a complex and heterogeneous product in its setting, the cognitive structures of housing users for housing attributes is also complex as well as their choice behaviours. Zinas *et al.*, [1] observed that choices are versions of life expression, hence, the man becomes versions of who they were, based on the different choices they make. Zinas *et al.*, [1] stressed that preferences and choices are lifetime phenomena, and that every person lives and operates within the framework of choosing from alternatives of life's endeavours. These choice and preference activities are dynamic

in their operations. Molin *et al.*, [13] state that choices are understood to echo preferences. Housing choice and preference has been extensively studied [14], but not within the context of behavioural framework in the study area. Most housing choice studies have been conducted within the framework of stated housing preference and choice, but neglecting the intrinsic choice of house types that informed such choice actions. Johnson *et al.*, [12] argued that preference and choice models are potentially powerful in eliciting consumer housing preferences.

Maclennan *et al.*, [15], suggest housing consumer demand for owner occupation, low cost home ownership options and housing affordability as ways of analysing the whole local housing market system for communities in Scotland. This does not include the consumer preferences for housing types or neighbourhood. In the case of high income earners, the low cost home ownership options that may be available may not be suitable for the consumer preferences for either the housing types or choice of the neighbourhood [16]. The main determinant of the housing demand is household size while other factors such as income, price of housing, cost and availability of credit, consumer preferences, investor preferences, prices of the substitutes and price of the complement also play a role [17].

Housing choice and preference can be classified into two broad modelling approaches. These are revealed models which are based on observational data of household, actual housing choices in real market [18]. Meanwhile, on the other hands is the stated models which are based on the assumption that the choices observed will be reflected through the influence of preferences, the conditions in the market as well as the availability of housing.

Dhar, [19] observed that preference uncertainty may lead to choice deferral when no single alternative has a decisive advantage. Researches have long observed that there is no clear-cut demarcation between preference and choice, hence they are often intertwined. Sela *et al.*, [20] noted that choice often originates from one's preferences. They further stressed choice as a reflection of preferences which lead people to infer their preferences by observing their own choices. Sela *et al.*, [21] noted that about 60 percent of Lagos residents are tenants and most of them have to pay rent as high as 50-70 percent of their monthly incomes since most of the existing accommodations are provided by private landlords. The city of Ibadan, and Lagos were selected because of their prominence and old indigenous cities, Ibadan being one of the largest city in the south of the Sahara after Cairo. Ado-Ekiti selection was based on the premise that the state was among the last created states in 1996, and more importantly housing programmes of the Federal government has not been fully carried out compared to older cities.

### 3.1 Theoretical Framework: The Self- Congruity Theory

Self-congruity Theory had its origin back to 1974 when Landon highlighted the role of self-concept in consumer behaviour [22]. Over time, researchers in various fields have expanded the scope to cover attitude, preference, choice, loyalty and host of others in respect to the relationship between one's self image and one's perceived image of a particular product or service. Sirgy [23] defined self-congruity as the match between a brand image and an individual's self-concepts as described by Sirgy [23] as the totality of the individual thoughts and feelings having reference to himself as an object. Self-congruity theory in the context of housing preference and choice can be expressed as the relationship between the choice of households in the selection of particular housing units with reference to its provision by the house-builders and policy makers or decision makers. Self-congruity theory no doubt could be of great practical benefits to the housing sector in the preference and choice of housing types. It must be noted here that a wide variation exist in terms of empirical support for self-congruity theory since it is assumed to be difficult to conduct an

assessment base on different parameters and methodologies used and these have often raise many more questions.

The thrust of this paper based on housing preference and choice presumes that the functional aspects of the housing units may be enriched by integrating social and psychological determinants such as the image of the homeowner. Going by the theory of self-congruity it is predicated that households are likely to take into account both functional and symbolic aspects in their housing choice. In addition, functional aspects of the home may be interpreted in light of the symbolic aspects—perceived consistency with the household’s self-image.

#### 4. Presentation of Data, Results and Discussions

Essentially, this section presents the results and discussion of the analysis of the field survey conducted. The section covered the respondents’ profile, the structural characteristics of their present houses, while the last part covered the relative importance indices of the housing choice and preferences of the participants.

##### 4.1 Participants’ Profile

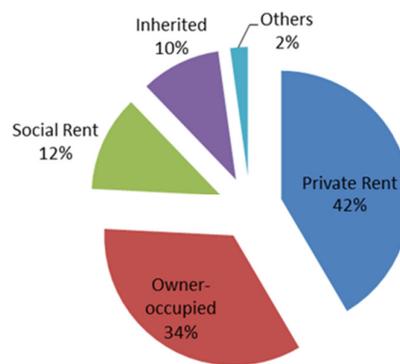
From the study, 58.5 percent of the sampled were males and 41.5 percent accounted for the females as revealed in Table 1. More males participation in the survey might have arisen that the decision making concerning the choice of houses to build or rent are mostly taken by the males.

**Table 1**  
 Profile of respondents

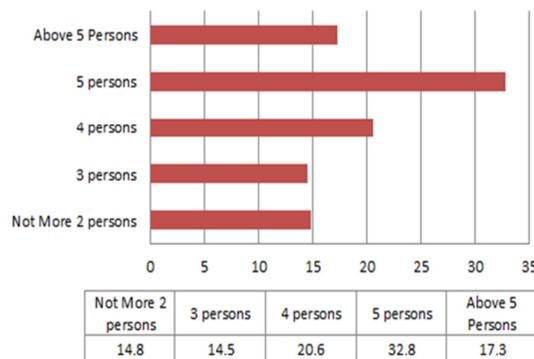
<b>Sex</b>	<b>Number of Respondents</b>	<b>Percentage</b>
Male	210	58.5
Female	149	41.5
<b>Total</b>	<b>359</b>	<b>100.0</b>
<b>Age</b>	<b>Number of Respondents</b>	<b>Percentage</b>
Less than 20 Years	28	7.8
20-29 years	65	18.1
30-39 years	77	21.5
40-49 years	96	26.7
50-59 years	78	21.7
Above 60 years	15	4.1
<b>Total</b>	<b>359</b>	<b>100.0</b>
<b>Educational level of Respondents</b>	<b>Number of Respondents</b>	<b>Percentage</b>
None	1	0.3
Primary school level	15	4.2
Secondary School level	22	6.1
Post-Secondary	231	64.3
Others	90	25.1
<b>Total</b>	<b>359</b>	<b>100.0</b>
<b>Employment Status of Respondents</b>	<b>Number of Respondents</b>	<b>Percentage</b>
Civil servants	166	46.2
Self employed	113	31.5
Organised Private sector	59	16.4
Artisan	21	5.8
<b>Total</b>	<b>100</b>	<b>100</b>

The age composition of the participants in the study area was also examined and this revealed that 7.8 percent are less than 20 years, while 18.1 percent are in the age bracket of 20 and 29 years. Age range of 30-39 years accounted for 21.5 percent while 26.7 of the participants are within the age brackets 40-49 years as shown in Table 1. The study revealed that there is high literacy level among the participants in the study area with 64.3 percent having post-secondary education. Those with primary and secondary education accounted for 10.3 percent as shown in the Table 1.

The employment status of the participants as revealed from the survey showed that 46.2 percent are civil servants or government workers, self-employed accounted for 31.5 percent while those working in the organized private sector constituted 16.4 percent of the participants in the survey. The remaining 5.8 percent are various forms of artisans' ranges from plumber, welder and masons. The data presented made it clear that there are more civil servants among the participants in the survey. One of the major determinant factors of housing choice and preferences is the income levels of the participants. The study reveals that 33.1 percent of the participants earn less than ₦216, 000 (\$685) per annum, 12.3 percent of the participants earns ₦216,000-₦239,000 (\$686-\$759) per annum, while 11.7 percent have income base between ₦240,000-₦419,000(\$761-\$1330), income base between ₦420,000- ₦539, 000 (\$1333-\$1711) per annum accounted for 9.7 percent. The study further shows that participants earning ₦540,000-₦719,000 (\$1714-\$1965) per annum accounted for 26.5 percent, while the rest 6.7 percent have income base above ₦720,000 (\$2286) per annum. It is observed here that the economic base of the people is weak, as it is also low in most parts of the country.



**Fig. 2.** Tenure Status of Participants



**Fig. 3.** Size of Household

**Table 2**  
 Facilities/structural materials of participants' houses

<b>Facilities</b>		
	<b>Number of Respondents</b>	<b>Percentage</b>
<b>Types of Toilet Facilities</b>		
Pit Latrines	40	11.2
Open Spaces	18	5.0
Water Closet	301	83.8
<b>Total</b>	<b>359</b>	<b>100.0</b>
<b>Water Source</b>		
	<b>Number of Respondents</b>	<b>Percentage</b>
Well	128	35.7
Pipe borne water	55	15.3
Bore hole	134	37.3
Water Tanker	42	11.7
<b>Total</b>	<b>359</b>	<b>100.0</b>
<b>Source of Power Supply</b>		
	<b>Number of Respondents</b>	<b>Percentage</b>
Electricity	220	61.3
Generator	103	28.7
Kerosene	21	5.8
Solar panel	15	4.2
<b>Total</b>	<b>359</b>	<b>100.0</b>
<b>Method of Waste Disposal</b>		
	<b>Number of Respondents</b>	<b>Percentage</b>
Burning only	92	25.6
Open space only	20	5.6
Government collection	119	33.1
Private firm collection	55	15.3
Community dump site	47	13.3
Burning, open space and community dump site	26	7.2
<b>Total</b>	<b>359</b>	<b>100.0</b>
<b>Structural materials</b>		
	<b>Number of Respondents</b>	<b>Percentage</b>
<b>Materials use for Wall</b>		
Mud block	24	6.7
Burnt bricks	29	7.8
Cement blocks	276	76.9
Stone	2	0.6
Wood	29	8.1
<b>Total</b>	<b>359</b>	<b>100.0</b>
<b>Roofing materials</b>		
	<b>Number of Respondents</b>	<b>Percentage</b>
Corrugated iron sheet	134	37.3
Long span	130	36.2
Nigerite	68	19.0
Others	27	7.5
<b>Total</b>	<b>359</b>	<b>100.0</b>
<b>Flooring Materials</b>		
	<b>Number of Respondents</b>	<b>Percentage</b>
Sancrete	18	5.0
Cement	274	76.3
Tiles	47	13.1
Marble	5	1.4
Terrazo	15	4.2
<b>Total</b>	<b>359</b>	<b>100.0</b>

The study carried out in the 15 Metropolitan local government areas as shown in Figure 2 reveals that 42 percent of the participants are living on rented apartment and 34 percent are owner occupied. The participants living on inherited houses accounted for 10 percent, while those on social rent were 12 percent. The remaining 2 percents live on other types of accommodation. The

size of households to a greater extent appears to determine the type of accommodation that a household will live in. From the field survey conducted, it was discovered from Figure 3 that households of not more than 2 persons accounted for 14.8 percent, while households of 3 persons were 14.5 percent. Households of 4 persons made up 20.6 percent; while 5 persons were 32.8 percent and 17.3 percent of the households has above 5 persons.

#### 4.2 Facilities/structural materials of participants' houses

This section addresses the facilities and the structural attributes of the participant's housing units. The study reveals that 83 percent of the participants have kitchen as their cooking location while 4.7 percent cook in the veranda of their houses, about 6.4 percent of the participants engaged in cooking at the passage of their houses. In most cases this phenomenon was common among the participants living in the face to face housing types. The facilities in the respondents' present housing cover toilet facilities, sources of water and power supply and methods of waste disposal as well as the structural materials such as the wall, roofing and flooring materials are as shown in Table 2. All these components in most cases appears to influence the housing choice and preferences of people.

#### 4.3 Respondents Relative Importance Indices

Relative Importance Index or weight is a type of relative importance analyses. RII was used for the analysis because it best fits the purpose of this study. According to Rosenberg [24], RII aids in finding the contribution a particular variable makes to the prediction of a criterion variable both by itself and in combination with other predictor variables. In the calculation of the Relative Importance Index (RII), the formula below was used.

$$RII = \frac{\sum fx}{\sum f} \times \frac{1}{k}$$

where  $\sum fx$  is the total weight given to each attributes by the respondents,  $\sum f$  = the total number of respondents in the sample,  $k$ =the highest weight on the likert scale. This implies that the item with the highest RII value is ranked as first (1) , the next as second (2) and so on.  $RII < 0.60$  – item is considered to have a low significance  $0.6 \leq RII < 0.80$ ,  $RII \geq 0.80$  item estimated to have very high significance. Table 3 present the relative importance indices of the housing preference and choices of the participants in the study area.

Households' perception on housing choice and preference were estimated on a five point likert scale, where 1 = mostly not preferred, 2= not preferred, 3= undecided, 4= preferre and 5= most preferred.

A total number of 434 questionnaires were administered and 359 were completed and found useable representing a response percentage rate of 82.7 percent. The result of a survey is considered significant if the response rate not lower than 30-40 percent [25]. This implies therefore, that the response rate is considered to be adequate.

Table 4 shows the participants' hierarchical housing preferences and choices in the study area The study revealed the highest preference for 3-bedroom flat with an RII of 0.74, shows that irrespective of individuals' households' sources of income, the preference for 3-bedroom was the highest. This might also be to the large family size as 50.1 percent of the respondents have family size of 5 and above. It was also revealed that 2-bedroom flat was ranked second with an RII of 0.64. The relative Importance Indices of 0.61 makes self-contained flat ranked third in the preference of

housing choices. The preference for duplex came as the 4<sup>th</sup> choice with an RII of 0.57, 4 bed room flat house ranked 5<sup>th</sup> with RII of 0.50 while Semi-detached house has RII of 0.47 and ranked as sixth in the hierarchy and Rooming houses popularly called Face-me-I face-you was the least preferred among the housing choices with RII of 0.39.

**Table 3**

Relative importance indices of respondents housing preference and choice

S/N	Housing Types	Frequency of Response					$\Sigma f$	$\Sigma fx$	Mean	RII	Ranking
		5	4	3	2	1					
1	Rooming houses (Face to Face)	18	40	26	105	170	359	708	1.9721	0.39	7th
2	Semi-detached	18	63	61	109	108	359	851	2.3704	0.47	6th
3	Self-contained	53	105	68	69	64	359	1091	3.0389	0.61	3rd
4	2 bedrooms flat	51	137	54	69	48	359	1151	3.2061	0.64	2nd
5	3 bedrooms flat	92	150	43	39	30	359	1322	3.6824	0.74	1st
6	4 bedrooms flat	49	59	26	112	116	359	899	2.5041	0.50	5th
7	Duplex	75	69	36	78	101	359	1016	2.9554	0.57	4th

**Table 4**

House preference and choice of respondents

S/N	House Preference and Choice	RII	Ranking
1	3 bedrooms flat	0.74	1st
2	2 bedrooms flat	0.64	2 <sup>nd</sup>
3	Self-contained	0.61	3 <sup>rd</sup>
4	Duplex	0.57	4 <sup>th</sup>
5	4 bedrooms flat	0.50	5 <sup>th</sup>
6	Semi-detached	0.47	6 <sup>th</sup>
7	Rooming houses (Face to Face)	0.39	7 <sup>th</sup>

This study also reveals that preference and choice may not necessarily have to do with taste going by the results of the regression analysis. The results indicated that income does not determine preference with the  $R^2$  having a value of 0.033 which is statistically not significant as the threshold of significant ranges from 0.2 and above. The findings of the study was actually a true representation of what is prevailing in the 15 metropolitan local government areas of the study in Nigeria and may be helpful to authorities concern in the formulation of housing policies.

There is a need for the upward review of the minimum wage in the country as the era of N18000 (\$57.00) per month is no longer realistic with the economic depression in the country. It was inferred here that income might not necessarily be a determinant factor for housing preference and choice. It could be observed here that income affects housing affordability but did not really have much effect on housing preference.

## 5. Conclusion

The study concluded that the housing preferences and choices of the participants' households and developers in the South west geopolitical zones are rated in the hierarchical sequence of 3 bedroom flats, 2 bedroom houses, self-contained house, duplex house, 4 bedrooms flat house, Semi-detached house and rooming houses (Face-me-I-face-you). The participants are more interested in living or owning 3bedroom flat. The study revealed that people are no longer interested in building or living in the Brazilian housing type popularly called face-me-I-face-you. The study will enable real estate developers or home-builders to develop strategies to market and meet the demand of houses and hence this increase sales and profit levels. This study also will be of immense benefits to the public officials or decision makers to develop policies and programme to choose homes which could be in agreement with the goals of public housing. For effective housing policy and programmes, study on the choices and preferences of the citizenry should be carried out from time to time by various government agencies that has to do with housing provision. The national economy plays a large role in the individual's housing preferences and choices and increasingly a large number of Nigerians find housing to be beyond the family budget.

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