

# Study of Residents' Satisfaction with Housing Conditions in Urban Centres of Southwest Nigeria

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Housing satisfaction is the overall reaction to how housing adequacy meets the urban residents' expectations. Many studies on housing satisfaction related issues were directed at public housing. Enough attentions have not been given to residents' satisfaction with privately owned housing at regional scale despite its diversity and contributions to urban housing provisions in Nigeria. The study examines the residents' satisfaction, housing parameters across the urban centres of southwest Nigeria. Three urban centres were selected based on the dialectical composition of the zone as found in the literature. Principal Component Analysis extracted three components from the 38 satisfaction, housing variables used. Component 1, 2 and 3 account for 29%, 23% and 8% respectively. Discriminant analysis was conducted on these variables and the result shows three distinct regions of slightly different housing satisfaction level. The study shows that resident neighbourhood facilities and social environment are the basic and most important factors for determining the success of housing in meeting up with the objectives of the residents in southwest Nigeria. In the light of this neighbourhood planning approach and effective distribution of social facilities, according to socioeconomic status of residents should be given preference in the built environment of this region for urban resilience and satisfactory housing conditions in southwest Nigeria.

**Keywords:** Facilities; Housing Condition; Neighbourhood; Resident Satisfaction; Urban centre.

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## Introduction

The increasing housing production and improving existing housing stock in urban centres of developing countries are activities that must specifically address and focus on the health and satisfaction of the end users (UN Habitat, 2001). Resident satisfaction can be described as the degree to which residents feel that their housing meet their desired expectations (Jiboye, 2011). Resident satisfaction is complex, multifaceted and multidimensional measure of quality housing (Foley, 1980). The studies with housing quality cannot not be exhausted because housing inevitably contributes to the quality of lives and the inhabitants' social and economic needs keep evolving with time (Lepkova, 2016). Housing is a barometer for measuring the standard of living, level of technological

advancement, culture and civilisation of a given urban milieu (Abdul & Hashim, 2015). The problem of quantitative and qualitative housing has long been identified with Nigeria urban housing (Fatima & Kawu, 2011; Morenikeji *et al.*, 2017). In the Information Communication Technology, ICT, era, there has been an emerging necessity to improve the degree of urban resident satisfaction through the production of quality housing. The problem of quality housing is more pronounced in urban areas due to a series of deprivations, congestions, poor housing conditions and overcrowds brought about by population growth. Urban population from natural growth, rural-urban and urban-urban migrations have its consequential effects on the housing deficit (Adedayo, 2011). Urban housing supply could not meet the demand of the teeming

population. This over stresses the existing housing and create deteriorate poor living conditions to the dwellers.

Several studies (Olotuah & Bobadoye, 2009; Jiboye, 2009; Oduwaye *et al.*, 2011; Olotuah, 2015; Abdul & Hashim, 2015) on resident satisfaction with housing conditions and quality conducted in Nigeria were focused on the sample survey housing of quantity (Morenikeji *et al.*, 2017). There is a very few of such at regional scale. The majority of these studies was directed at public housing where interest is geared toward the absence of user's input in the design of the housing scheme thereby leading to all forms of modifications. Enough attentions have not been given to residents satisfaction with privately owned housing at local and regional scale despite its diversity in housing typology and its far reaching contributions to urban housing supply in Nigeria. The study hypothesised that urban centres located in each sub-zones (Northwest, south and southeast) will exhibit similar quality housing characteristics and will be distinctly different from the other sub-zones in the region. Therefore, there is a need to examine the residents' satisfaction characteristics with housing conditions in the urban centres of southwest Nigeria with a view to identify the factors responsible for housing quality variations across the region for both policy makers and all professionals in the building industry in pursuance of housing satisfaction in the urban centres of southwest Nigeria.

## Literature Review

The importance of housing to the well-being and general human development underscore the reason for studying different aspects of housing quality. As an important life component, housing guarantee shelter, safety, dignity and delight in addition to providing a place of rest (Hablemitoglu *et al.*, 2010; Henilane, 2016). Housing is an essential indicator of living standard of the urban population (Abdul & Hashim 2015). In the Information Communication Technology, ICT, era, housing has to be comfortable, pleasant, economical,

maintainable and architecturally expressive in addition to complaint with the neighbourhood environment (Henilane, 2015a). This points to the fact that quality housing is far beyond the general assessment of the physical and structural adequacy of the housing units. Housing satisfaction is a complex, multifaceted and multidimensional measure of Housing quality (Berk, 2005). The multidimensional nature of the problem accounts for the interdisciplinary approaches to the housing discussion (Foley, 1980).

The concept of housing satisfaction relates to how a resident reacts to the overall adequacy of housing as it meets their expectations (Waziri *et al.*, 2014). Housing satisfaction is the degree to which inhabitants feel that their housing is helping them to achieve their housing goals (Jiboye, 2012). Housing satisfaction examines characteristics of the users and that of the neighbourhood environment (Amerigo & Aragones, 1997). Housing satisfaction could be used to examine the characteristics of the residents, considers the satisfaction as a predictor of the residents' reaction to the existing situation towards making changes to the existing house or move to another housing with more facilities that meet their current housing needs and preferences (Mohit & Azim 2010). In addition, it could measure housing quality by examining the physical characteristics of the housing unit, housing facilities, infrastructure and housing neighbourhood environment (Jiboye, 2009; Mohit & Azim, 2012). Housing satisfaction is said to be an equilibrium situation between housing conditions and housing anticipated (Salleh, 2008).

Some studies (Jiboye, 2009; Mohit & Azim, 2012) on housing satisfaction concentrates on physical characteristics of the housing unit. For instance, Galster (1987) measured housing well-being using a satisfaction with the housing unit facilities like number of rooms per occupants, private toilet and kitchen. On the other hand, Varady and Carrozza (2000) observe that housing satisfaction is related to the dwelling unit,

services provided, the housing environment, and the location of the facility within the house. Mohit and Azim (2012) studied residential satisfaction with public housing in Hulhumale, Maldives by assessing the level of satisfaction with the public housing unit. The study revealed that the overall levels of satisfaction specific to the Maldives public housing studied are determined by the size and condition of the bedroom, cleanliness of the surrounding, provision of electrical and mechanical services, conditions of washing and drying areas.

Jiboye (2009) examined the tenant satisfaction with public housing in Lagos, Nigeria. The study employs dwelling unit features, housing area environment and the management of housing units. The study discovered that the level of housing satisfaction depends on the physical features of the dwelling units, housing, environment area, and the management of the housing units. The study concluded that the level of satisfaction is also different among the residents of the housing units. In a related study conducted by Jiboye (2014) on determinant of residential quality in Osogbo, Nigeria the study concluded that house-type significantly influence user's perception of residential quality in the study area.

Waziri *et al.* (2014) investigated the influence of socioeconomic status as a predictor of housing satisfaction of the residents in a study conducted on prince and princes housing estate Abuja, Nigeria. The study discovered that employment and income are the major socioeconomic variables predicting housing satisfaction. This finding corroborates with similar studies by Liu (1999) who observed that household income influence residential satisfaction. This study was also on prototype housing estates designed and constructed for certain categories of users among the urban dwellers.

In a housing survey conducted by Bark (2005) on the occupants' perception of neighbourhood concept in contemporary

residential environments, the study discovered among others that concentrations on the physical attributes of dwelling units for housing satisfaction and paying less attention to the neighborhood environment increases feelings of insecurity, social interactions, communal participation and social support of the built environment. Certain types of neighbourhoods are considered more satisfactory than the other due to their physical characteristics (Adriaanse, 2007). The three distinguished residential environment components include neighbourhood, housing unit and the neighbours (Canter & Rees, 1982). The way residents perceive and use their neighbourhood environment is exploited in this study. Empirical studies on quality housing have shown that quality housing due to its complex, multi-faceted and multidimensional is anchored on many factors: housing unit types, housing facilities (toilet, dining and kitchen), the neighbourhood environment (outdoor and parking spaces, security), and the housing area (appearance and size of the building), location of the housing (proximity to transportation and public facilities) and urban management agency.

This explains why Literature on quality housing abounds and with findings emphasising different objectives and subjective factors of quality housing attributes like physical, social, psychological, management, neighbourhood and demographic characteristic of the residents. These approaches suggest that all subjective and objective attributes of quality housing could be used for measuring housing satisfaction depending on the type of data used and the socio-culture of the milieu under investigation. Most of these studies place less emphasis on how residents perceive urban housing management features which is charged with the responsibility of planning, regulating and managing the physical and socioeconomic activities of the urban centres. The urban management aspect of housing quality is the statutory body coordinating all the aforesaid

attributes of quality housing without which residents may choose not to comply with any established building standard. Although there seems to be no universally accepted measurement of quality housing characteristics many of the studies have established a basis for measuring quality housing either from subjective or objective parameters. This shows the relevance of establishing a basis for evaluating housing satisfaction.

The individually owned housing unlike public housing are diversified in typology and scale with far reaching effects in urban housing provisions in Nigeria (Ikejiofor, 2006; Olatubara, 2007). The individual responsibility for putting up a building has been described as housing management while housing administration is the institutional legislation for policy formulation, land use, infrastructure provision, building materials standard, setback, plot size and percentage of plot to be developed (Agunbiade, 2007). A general observation to some of existing public housing estates in the study area shows that Public housing developments have consistency in both housing management and housing administration. This is evidenced in the consistency in the layout of the housing area and the availability of house-to-house serviceable road network. The same is not the case with the predominant individual housing neighbourhoods.

This study, therefore, focuses on the major quality housing parameters that varies across the urban centres of southwest Nigeria for determining acceptable quality housing variables and incorporating these in the urban policy and regulations in the

region.

### **Methodology**

Southwest Nigeria is divided into three sub-zones, namely; Northwest, South, and Southeast (Aremo, 2009). The sub-zone reflects similarity in their dialect (Johnson, 2001). Urban Centre of Ibadan, Abeokuta and Akure respectively, were selected to represent each of the sub-zones of southwest Nigeria. The selected urban centre from each of the sub-zones were urban centres with the highest population that also serve as administrative headquarters among others within the sub-zones. The sampled houses were spread across each of the twelve administrative wards in each of the selected urban centres. A questionnaire survey was carried out in these selected urban centres to elicit information on the existing housing conditions in the study area. Two local governments were randomly selected from each of the three selected urban centres. This study employed the use of estimate to arrive at the sample size for the study (Israel, 1992). The sample size is presented in Table 1. A total of 784 households was randomly selected out of a total of 313,138 households in the three urban centres. A sample size of 784 households at 95 percent confidence interval with a margin of Error of about  $\pm 3.5\%$  was covered in Southwest Nigeria. A sample size required for population between one million and three hundred million at 95% confidence interval with a Margin of Error of about  $\pm 3.5\%$  is 784 (Krejcie, 1970). Therefore 784 households arrived at as sample size for this study intuitively makes sense.

**Table 1: Population and Households Covered in each of the Local Governments.**

Urban Centre	Local Govt	2006 Census	2018 Projected Population	Calculated Household @6 Persons per household	No. of House- holds Covered	Percent age (%)
<b>Ibadan</b>	Ibadan North	306,795	437,416	72,902	173	22.23
	Ibadan South East	266,046	379,317	63,220	150	19.28
<b>Abeokuta</b>	Abeokuta North	201,329	287,047	47,841	113	14.60
	Abeokuta South	250,278	356,836	59,472	140	18.14
<b>Akure</b>	Akure North	195,200	278,308	46,384	108	14.15
	Akure south	160,081	228,237	38,040	100	11.60
<b>Total</b>		<b>1,379,729</b>	<b>1,967,161</b>	<b>327,859</b>	<b>784</b>	<b>100%</b>

Source: NPC, 2006 & Author's Projection, 2018

The population in each of the two local government areas was used in the distribution of the 784 questionnaires accordingly. The distribution of the questionnaire shows that 323, 253 and 208 households were covered in Ibadan, Abeokuta and Akure urban centres respectively. A total of 557 was retrieved representing 71% of the sample size. The housing satisfaction variables are grouped into five categories: (a). Physical features of the housing unit; (b). Services within the housing unit; (c). Public facilities in the neighbourhood; (d). Residents' social environment (e). Urban Management Feature. A five-point Likert scale was used to measure the housing satisfaction on the housing components employed (Table 2.). The data were analysed using both principal components (PCA) and regression analyses of the variables using SPSS version 20.

### The Study Area

The southwest region lies between Longitude 2° and 6° E and latitudes 6° and 9° N. The region is inhabited traditionally by the Yoruba speaking group of individuals that is made up of Oyo, Osun, Ondo, Ogun, Ekiti and Lagos States (Fig.1.1). The population of the six Yoruba speaking states put together by the 2006 Population census was Twenty Seven Million, Five hundred and Eleven Thousand, nine Hundred and

Ninety-two (27,511,992), representing 21% of the country's population. The 2017 population of Nigeria at 2.67% growth rate was estimated to be 189,559,502 people (UN, 2017).

The Yoruba language in the region has many dialects (Bakare-Yusuf, 2011). The southwest zone has three sub-zones classified according to the major dialects (Aremo, 2009). Figure 1.2 shows the sub-zones, namely; Northwest Yoruba (NWY), South Yoruba (SY) and Southeast Yoruba (SEY) sub-zones. Accordingly, three most populated urban centres, which, also serve as administrative headquarters were selected from each of the sub-zones. Ibadan was selected to represent the Northwest (NWY) sub zone. The Northwest Yoruba (NWY) consists of Oyo, part of Osun and part of Lagos. These are Oyo and Ibolu Yorubas (Johnson, 2001). The South Yoruba (SY) is made of Igbomina, Ekiti, Ijesa, Ife, Akoko in the present day of Osun, Ondo and Ekiti States. The urban centre of Akure was selected for this sub-zone. The Southeast Yoruba (SEY) includes predominantly part of Lagos and Ogun States and Abeokuta was selected from Southeast Yoruba (Fig 1.2). The highest rate of urbanisation is evidenced in the peri-urban neighbourhoods being taken over by major urban centres in the southwest Nigeria.

Table 2:Housing Quality Constructs Employed in the Study

SN	a). Housing unit Physical characteristic	Code
1	How satisfied are you with the layout of the house?	D1
2	How satisfied are you with the appearance of the house?	D2
3	How satisfied are you with the wall finishes of the house?	D3
4	How satisfied are you with the floor finishes of the house?	D4
5	How satisfied are you with the windows of the house?	D5
6	How satisfied are you with the doors of the house?	D6
7	How satisfied are you with the ceiling material of the house?	D7
8	How satisfied are you with the kitchen conditions of the house?	D8
9	How satisfied are you with the toilet condition of the house?	D9
10	How satisfied are you with the Bedrooms condition of the house?	D10
11	How satisfied are you with the living room conditions of the house	D11
12	How satisfied are you with the Ventilation conditions of the house	D12
13	How satisfied are you with the lightning condition of the house	D13
14	How satisfied are you with the electricity conditions of the house	D14
15	How satisfied are you with the septic tank/soakaway conditions of the house	D15
<b>b ). Characteristics of services within the housing area</b>		
16	How satisfied are you with the garbage collection conditions of this house	M16
17	How satisfied are you with the staircase condition of the house	M17
18	How satisfied are you with the plumbing work condition of this house	M18
19	How satisfied are you with the corridor/verandah	M19
<b>c). Public facilities in the neighbourhood.</b>		
20	How satisfied are you with the public bus stop in the neighbourhood..	P20
21	How satisfied are you with the open space/playing ground in the neighbourhood.	P21
22	How satisfied are you with the place of worship (mosque/church) in the neighbourhood.	P22
23	How satisfied are you with the schools conditions in the area	P23
24	How satisfied are you with the health centre in the area.	P24
25	How satisfied are you with the markets/shops in in the neighbourhood	P25
26	How satisfied are you with the distance of police station to the housing area	P26
27	How satisfied are you with the location of fire station to the area	P27
<b>d). Characteristics of residents social environment.</b>		
28	How satisfied are you with the familiarisation within the neighbourhood.	E28
29	How satisfied are you with the streets appearance in the neighbourhood	E29
30	How satisfied are you with noise pollution in the neighbourhood	E30
31	How satisfied are you with the social composition of the population.	E31
32	How satisfied are you with the level of security within the area	E32
33	How satisfied are you with level of community associations within the area.	E33
<b>e). Urban Management</b>		
34	How satisfied are you with the level of the neighborhood infrastructure facilities	U34
35	How satisfied are you with the activities of planning and development authority in the area	U35
36	How satisfied are you with the drainage conditions	U36
37	How satisfied are you with the road conditions in the neighbourhood	U37
38	How satisfied are you with the refuse condition in the neighbourhood.	U38



Figure 1.1: Study Area.  
Source: Ministry of Land and Planning, Oyo State (2016).

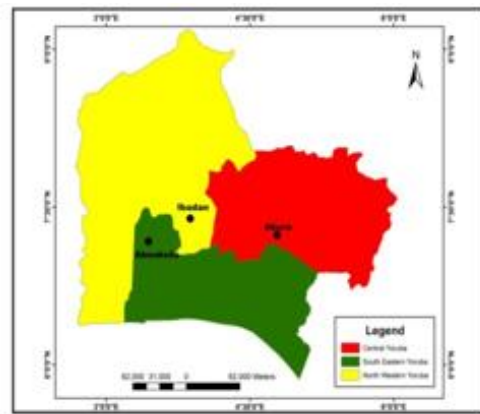


Figure 1.2: Yoruba sub-zones in Southwest Nigeria  
Source: Aremo, (2009)

### Housing characteristics

The assessed housing and neighbourhood environment characteristics employed in the study are shown in Table 2. This is in tune with Mohit *et al.* (2012) and Jiboye (2014) who adopted quality housing characteristics with slight modification to reflect the peculiarity of the study area. These are: (a). Physical features of the housing unit; (b). Services within the housing unit; (c). Public facilities in the neighbourhood; (d). Facilities in the housing area; (e). Urban Management Agency. A five point Likert scale ranging between '1'= very dissatisfied, '2'=dissatisfied, '3'= Neither satisfied nor dissatisfied, '4'=satisfied and '5'=very satisfied were used to measure the residents' quality housing conditions for southwest Nigeria. Table 2 indicates the list of the housing management and administration characteristics employed in the conduct of the study. The housing management variables are components D1 through D15 and M16 through M19. Housing administration components are P20 through P27, E28 through E33 and U34 through U38.

The suitability or otherwise of the 38 variables of resident satisfaction with the housing conditions survey was carried out. The result is shown in Table 3. The Cronbach's Alpha coefficient of 0.737 indicates that the constructs are a good measure of the study intents. The correlation matrix results revealed strong loading of variables at 0.3 coefficient and above. The

correlation of 'how satisfied are you with the layout of the house' with other variables of resident satisfaction with housing conditions was between 0.131 and 0.229. This is low and this was excluded in the further analysis.

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.746	.737	38

### Analysis and Interpretations of the Findings

The result of the field survey was examined by Principal Component Analysis (PCA) with Oblimin rotation. Prior to this operation the suitability of the variables for PCA was verified. The results show that the Kaiser-Meyer-Okin (KMO) value of 0.755 is greater than the recommended value of 0.6 (Pallant, 2013). The Bartlett's Test of Sphericity has the value of chi-squares 1470.832, df, =55; P = 0.000. Which further confirmed the factorability of the matrix.

**Three components with Eigen factor greater** than or equal to 1.0 were extracted. Components 1, 2 and 3 account for 29.33%, 23.07% and 8.42% respectively. Table 4 shows the variables that load strongly on each of the components. Components 1 are characterised by items E28 through E31 and E33 in the residents social environment as indicated in bold fonts.

**Table 4: Pattern Matrix of Housing Satisfaction Variables on the Principal Components.**

	Component		
	1	2	3
How Satisfied are you with the Layout of the house?			
How Satisfied are you with the appearance of the house?			
How Satisfied are you with the wall finishes of the house?			
How Satisfied are you with the Floor Finishes of the house?	.320		.441
How Satisfied are you with the windows of the house?	.335		
How Satisfied are you with the Doors of the house?			
How Satisfied are you with the ceiling materials of the house?	.302		
How Satisfied are you with the Kitchen of the house?			
How Satisfied are you with the Toilet of the house?			
How Satisfied are you with the Bedroom of the house?			
How Satisfied are you with the Living room of the house?			
How Satisfied are you with the Ventilation conditions of the house?			
How Satisfied are you with the Lightning of the house?			
How Satisfied are you with the electricity of the house?	.438		.597
How Satisfied are you with the septic tank of the house?	.423		.494
How Satisfied are you with the garbage of the house?	.391	-.322	.423
How Satisfied are you with the staircase of the house?	.362		
How Satisfied are you with the plumbing of the house?		.483	
How Satisfied are you with the verandah of the house?			
How Satisfied are you with the public bus stop?	.606	-.313	
How Satisfied are you with the open/playing ground?	.547		
How Satisfied are you with the place of worship?		<b>.704</b>	
How Satisfied are you with the schools conditions in the area?		<b>.615</b>	
How Satisfied are you with the healthcare in the area?		<b>.660</b>	
How Satisfied are you with the market/shops in the area?		<b>.746</b>	
How Satisfied are you with the police station location?	.312		
How Satisfied are you with the fire station in the house area?		<b>.724</b>	
How Satisfied are you with Familiarisations within the neighbourhood of the house?	<b>.634</b>		
How Satisfied are you with the street appearance of the house?	<b>.615</b>		
How Satisfied are you with the Noise pollution of the house?	<b>.688</b>		
How Satisfied are you with the social mix of the house area?	.560		
How Satisfied are you with the security of the house area?	<b>.640</b>		
How Satisfied are you with the community association of the house?	.559		
How Satisfied are you with the Infrastructure of the house area?	.416		
How Satisfied are you with the Planning authority in the house area?			
How Satisfied are you with the drainage of the house area?	.612		
How Satisfied are you with the access roads of the house area?	.437		
How Satisfied are you with the refuse dump in the housing area?		-.426	

Extraction Method: Principal Component Analysis.  
 Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 9 iterations.

Component 2 is characterised by residents' satisfaction with variables P22 through P27 and these variables are the public facilities in the neighbourhood. Component 3 loads

on residents' satisfaction with their dwelling places. The first two components account for 52% of the residents' satisfaction characteristics and were adopted for the study analysis. The two components are



referred to as 'housing administration' parameters.

The outcome of the PCA described in Table 4 reveal that satisfaction with the social environment and Neighbourhood facilities are the most significant factors in overall housing satisfaction of the southwest zone of Nigeria. Attempt was made to establish which of these two variables dominate the urban centres of the zone. This was done loading the variables of housing satisfaction for each of the urban centres investigated. The result is shown in Table 5. The weighted mean scores for each of the three urban centres revealed that residents' housing satisfaction in the urban centres of southwest region are similar, although it differs slightly in terms of either predominance of social environment or neighbourhood facilities in the urban centres examined. The results reveal that Abeokuta ranked 1<sup>st</sup> in residents' satisfaction with Neighbourhood facilities and ranked 3<sup>rd</sup> in residents' satisfaction with the social environment. Akure ranked 2<sup>nd</sup> in residents' satisfaction with both neighbourhood facilities and social environment. Ibadan ranked 1<sup>st</sup> in residents' satisfaction with their social environment and 3<sup>rd</sup> in Neighbourhood facilities. Generally the result shows a very close similarity in the degree of residents' satisfaction for Neighbourhood facilities and social environment across the urban centres. Ibadan and Abeokuta for instance share slight similarities in residents satisfaction variables explored as they both ranked first and third. The housing satisfaction pattern exhibited by the urban residents of the southwest zone on the two components loaded is relatively similar with insignificance difference that cannot be noticed. This insignificance difference, perhaps explains the reasons for the homogeneity in the urban centres of the

southwest zone as expressed in the preference of the residents.

It can also be understood from the outcomes that though the neighbourhood patterns are different among the urban centres of the southwest, the differences reflect high housing quality development. This has influenced concentration of residents around the neighbourhood facilities and consequently this enhanced social environment of the residents in the region. In recent times, most residents have access to quality housing in urban centres of southwest region (Morenikeji *et al.*, 2017). This shows that the housing management is progressing steadily in the region.

Attention therefore has shifted to other aspects of the residents' housing environment as revealed by this study. This other aspect is housing administration in southwest Nigeria. The result shows a high degree of homogeneity in the residents' housing satisfaction pattern due to concentration of certain groups of residents in a neighbourhood due to similarity in socioeconomic factors. Southwest region is known for its high degree of socioeconomic factors (Ayeni, 2002).

#### **Housing Conditions Pattern.**

The homogeneity exhibit in the above result is further investigated using discriminant analysis as each of the sub-zones are represented by an urban centre. The essence is to identify homogeneous pattern among the three geographical sub-zones of southwest Nigeria and the difference among each of the geographical sub-zone interms of housing conditions. Figure 4 shows the clustering of the residents' satisfaction housing variables of the three urban centres around their group centroid. The Ibadan and Abeokuta show very close cluster pattern.

**Table 5 :Loading of the Three Urban Centres on the Two Components**

Urban Centre	Component 1	Rank 1	Component 2	Rank 2
Ibadan	4.513	3	4.851	1
Abeokuta	4.713	1	4.485	3
Akure	4.646	2	4.805	2

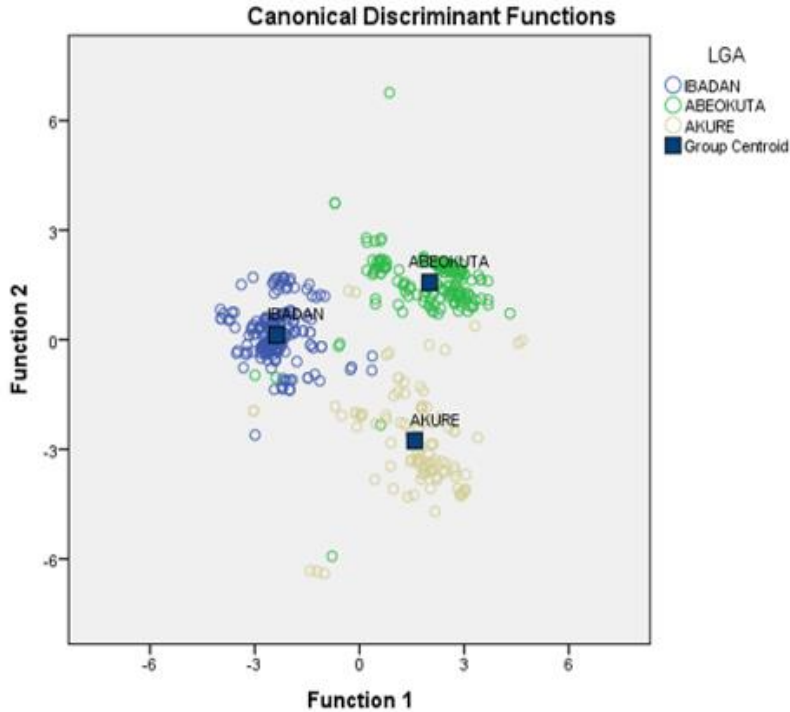


Figure 4. Distribution of the Variables around Group Centroid of the three Geographical Sub-zones

However, Akure exhibits a relatively loose clustering pattern. Ibadan and Abeokuta are similar in residents' satisfaction housing conditions but slight different compared with Akure. The similarity exhibits by Ibadan and Abeokuta could be understood as they both share similar socioeconomic characteristics and population rising. The population growth of Abeokuta could be due to its proximity to Lagos that keep expanding toward the sub-zone. The urban centre of Ibadan is known for its populace, economic and long history of administrative

position in the southwest zone.

The extracted canonical discriminant function in Table 6 shows that the first function explains 63.7% of the between-class variations among the three sub-zones and the second function explain 36.3%. The significance of the extracted functions is presented in Table 7. The chi-square value of 1340.104,  $df = 76$ ; and  $P = .000$  and the chi-square value of 571.859,  $df=37$ ; and  $P=.000$  support the significance of both functions.

**Table 6: Canonical Discriminant Functions**

Function	Eigenvalues			Canonical Correlation
	Eigenvalue	% of Variance	Cumulative %	
1	4.441 <sup>a</sup>	63.7	63.7	.903
2	2.529 <sup>a</sup>	36.3	100.0	.847

a. First 2 Canonical Discriminant Functions were used in the Analysis.

**Table 7: Wilks' Lambda Significance of the Functions**

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 2	.052	1340.104	76	.000
2	.283	571.859	37	.000

### Conclusion

The study examined the residents' satisfaction with housing conditions in urban centres of southwest Nigeria based on the evaluation of residents' satisfaction with physical housing unit characteristics, services within the housing units, public facilities provided within the neighbourhood and residents' social environment. The objectives of the study were to examine the residents' satisfaction characteristics with housing conditions in the urban centres of southwest Nigeria and to identify the factor responsible for housing quality variations across the region. The major parameters that account for residents' satisfaction with their housing conditions as discovered by the study are neighbourhood facilities and social environments of the residents. These factors, as loaded by the PCA and further confirmed by discriminant analysis cut across the urban centres studied and accounts not only for housing satisfaction variations, but also responsible for the homogeneity pattern of housing conditions exhibit across the study area as evident in the discriminant function pattern of the variables in figure 4. The similarity in the housing quality across the sub-zones could be linked to high concentration of socioeconomic characteristic among the urban residents of the region. Ibadan (Northwest) and Abeokuta (south) are two sub-zones with high socioeconomic activities when compared with Akure (southeast sub-zone). The rate of urbanisation in these two sub-zones are higher and due to the rapid expansion of Lagos, the entire urban centres in the south sub-zone is experiencing rapid socioeconomic development at a higher rate than the other sub-zones in the region. The study has evolved three sub-zones within southwest region and Southeast sub-zone represented by Akure shows a unique resident satisfaction with their housing

conditions by exhibits a balance in the resident satisfaction with both neighbourhood facilities and social environment (Table 3.). This reveals that the population growth of southeast sub-zones is not as rapid as in the other two sub-zones of the southwest region. The study also shows that residents' satisfaction with their housing condition depend on the degree of their socioeconomic background and this factor varies between the urban centres.

In conclusion the study has further established the uniqueness of southwest Nigeria for good housing management and relatively week housing administration. The basic indication of housing management is expressed in the individual resident for quality housing in the area while the housing administration is expressed in the output of a gamut of institutions like land use control, policy formulation and provision of social facilities. The major indicators of poor housing administration are lack of good accessibility, close proximity of the adjacent housing in the neighbourhood, lack of open space, park, poor directional drainage, spontaneous alterations to existing housing and absence of green areas. These aspects require more attention for better and organised, built environment of quality housing in southwest Nigeria. In this regard, attention should be directed toward the improving the activities of urban management agency in charge of housing administration for ensuring quality housing in southwest Nigeria.

### 5. Recommendation

The resident housing satisfaction in southwest Nigeria is primarily anchored by neighbourhood facilities and social environment of the housing area among the private housing development. This shows that resident's satisfaction and housing

conditions are subjective and is influenced by the predominant socioeconomic variables of a given urban milieu. Measures aimed at promoting these characteristics require good housing administration. This is because housing in a safe environment with socioeconomic facilities are source of comfort and delight to the urban residents. In the light of this provision of housing neighbourhood and social facilities should be taken into considerations in the planning and land development control in the study area. The neighbourhood concept of urban housing growth is recommended for this region. This will ensure provision of neighbourhood facilities at significant distances and grouping of urban residents according to their socioeconomic status. This is because in deciding a housing, location, resident socioeconomic status for a period is critical to the choice of residing in an urban centre. Urban residents associate with their perceived standard and facilities as well. In the light of this a participatory neighbourhood planning approach for effective distribution of social facilities, according to socioeconomic status of residents should be given preference in the built environment of this region for urban resilience and satisfactory housing conditions in southwest Nigeria.

This will enable the various urban housing administration agencies and customary landowners to be involved in key decisions to avoid duplication of function that may embolden the residents instead of giving the urban residents relief and comfort. Besides, the urban physical development and land control for effective distribution of neighbourhood and social facilities, according to the population and socioeconomic status of the urban residents should not be left at the discretion of customary landowners and the individual developers among the urban residents. This will enable provision to be made for future developments without overstressing the existing facilities and for proper monitoring of the urban physical development.

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