SPATIAL SCALES AND MEASUREMENT OF HOUSING VALUES IN NIGERIA: THE CASE OF METROPOLITAN LAGOS

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Abstract

This research paper tries to answer the questions that, can heterogeneous zones be grouped to produce spatial markets? And are the submarkets produced meaningful geographically? The study shows that the use of small geographical scale helped to identify similar zones and neighbourhoods that have the same housing values and socio-economic characteristics. This is unlike some of the previous studies that combined wider areas together and so failed to identify spatial submarkets. Four different geographical scales were examined to determine the level of disaggregation of data, and the highest level of disaggregative data occurs where cities are divided into small areas by zones. This study utilized both secondary and primary sources of data. The study is based on data collected from sixteen Local Government Areas consisting of 53 residential zones in metropolitan Lagos. Out of the total number of 135,820 properties, a size of about 1% (1,500) was randomly selected. The hypothesis was tested using a combination of analysis of variance, multiple regression model, expansion method and the non hierarchical technique of grouping. The variations in house values by zones are more distinct than house values for communities and local governments that bear the same name. The grouping of the zones with similar house values also helps to identify housing submarkets that exist in the study area. The submarkets have variations in housing values that conform to the socio-economic characteristics of the households.

Key words: *Spatial scales, housing values, metropolitan Lagos.*

Introduction

The fact that there is spatial disparity in the distribution and quality of public services and infrastructural facilities means there is locational variation within the sub-areas of the Lagos metropolis (Aluko, 2008, 2003). For a city is in reality a very heterogenous entity. This paper therefore shows how house values vary by area and the role of changes in spatial scale in the understanding of housing values. Spatial scales are geographical terms which also mean geographical scale. It relates to space, position, shape or changes that take place within the environment. The hypothesis being tested is that the use of distinct spatial scales within cities for investigation affects the measurement and interpretation of housing values. That is distinct spatial scales of investigation within the cities yield different measures of housing values through the use of neighbourhood, location and physical attributes of houses to determine house values. This is to argue that rental values could vary significantly between large and heterogeneous neighbourhoods and more defined near homogeneous areas of investigation (Aluko, 2008, 2000). Thus, the choice of an appropriate scale is necessary for correct interpretation of the nature and pattern of variation. This paper examines these variations across different definitions of sub-area units for investigation and relates this to issue of defining housing markets spatially.

Methodology

This study utilized both secondary and primary sources of data. Primary information was collected from both direct interviews and personal observations. The study is based on data collected from sixteen Local Government Areas consisting of 53 residential zones in metropolitan Lagos. Out of the total number of 135,820 properties, a size of about 1% (1,500) was randomly selected. The hypothesis was tested using a combination of analysis of variance, multiple regression model, expansion method and the non hierarchical technique of grouping. This is necessary in order to show that using proper spatial scale in the delineation of zones and wards, distinct spatial pattern exist within the various housing attributes in metropolitan Lagos. Metropolitan Lagos developed from a narrow low-lying Island situated on latitude

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6° 27' North and longitude 3° 28' East along the West African coast (see figure 1).

Results and Discussion

Spatial Scale and Pattern of Housing Attributes

Housing values or rental values within a city are either aggregated or disaggregated over households in order to examine their variations (Aluko, 2008, 2003). Consequently, the geographical scale or spatial scale used always determines the level of the disaggregation of data. In this section, variation over four different scales will be examined. The description of the different levels of geographical scale or spatial scale is presented in figure 2. The first level is when a city is studied as a whole and this is the highest level of aggregative data. Another level of scale is when analysis is performed on the basis of local governments that exists within the metropolitan area. Although most cities in Nigeria have few local governments, the study area (metropolitan Lagos) has 16 local governments. The level of data at second scale is also still aggregative. The third level of scale is the analysis of the city on basis of communities that exist therein. This is when the city is either studied on neighborhoods basis or when one uses specific areas as explained in the multiple nuclei model. The data at this level may or may not be disaggregated depending on the size of the zones. The example of such neighbourhoods as related to the study area are: Ikeja, Mushin, Ketu, Oshodi, Apapa-Ajegunle, Surulere, Yaba, Ojota, Ikoyi and so on.

The fourth level of geographical scale or spatial scale is when the city is divided into zones, wards, enumeration areas or other small units. The highest level of disaggregative data occur where cities are divided into small areas for better examination of the households characteristics and distinct analysis of submarkets. For the collection of valuation data, the estate agents identified 53 zones in metropolitan Lagos. The zones were sufficiently homogeneous to constitute distinct spatial markets. The zones and the description of the areas are presented in table 1. In the next section, we shall evaluate variation in house values at the three levels for comparative purposes. However, the greatest emphasis will be on the fourth scale which is the zonal level because of the need to evaluate the extent to which the units at this level are distinct.

Variation of Housing Values by Local Governments, Communities and Zones

The local government areas in metropolitan Lagos are Agege, Ifako ljaye, Eti-Osa, Ikeja, Alimoso, Lagos Island, Apapa, Lagos Mainland, Mushin, Somolu, Kosofe, Surulere, Amuwo- Odofin and Oshodi Isolo. Mean annual housing rental values for each of the local government areas are shown in table 2. Clearly there are 3 or 4 types of groups from the table. The first group which comprise of Eti-Osa/Ibeju-Lekki local government is a very distinct local government, with mean annual house rental values of ₦1,860,000. There was no other local government that has any value as high as this figure. The second group consists of Ikeja and Alimosho local governments with annual house rental values of between ₦300,000 and ₦720,000. The third type of group contained local governments with annual house rental values that range between ₦100,000 and ₦250,000. The local governments in this group are Lagos Island, Lagos Mainland Somolu and Surulere. The fourth identified group of mean annual house rental values was also very distinct with low figures, they were extremes of the first group. They are below ₦100,000 and they consist of Agege, Mushin and Oshodi local governments.

It is suffix to clarify that most of the properties in low income areas are between 1-2 rooms per household. That is, most of the households rent or occupy 1-2 rooms and the mean annual rental values are between ₦48,000-72,000 ($320-480). Most of the properties in medium income area are flats and the mean annual rental values are between ₦120,000-360,000 ($800-2,400). While in high income areas the common properties are flats, bungalows and duplexes and the mean annual rental values are ₦500,000—₦1million ($3,333=6,667). The average exchange rate of Nigeria currency (Naira) to United States Dollar ($) is $1=—₦150. There are twenty five communities defined on geographic units within which certain social relationships exist (see Table 3 and Figure 2). Table 3 shows the variations in the housing rental values by communities. The house values by communities in table 3 could also be grouped into four. The first group are the communities with annual house rental values less than ₦220,000 ($1,467). They consist of communities like Mushin, Ketu, Oshodi, Ojota, Eko, Agege, Oyingbo, Aguda, Ojodu, Ipaja, Alagbado and Abule Ijesa. The second group of communities

are those with annual house rental values between ₦220,000 and ₦400,000 ($1,467-2,667). The communities with these values are Apapa, Isolo, Sogunle, Ijesa Tedo, Somolu, Alausa and Gbagada. The communities within the third group are Surulere, Yaba and llupeju and they have annual house rental values between ₦401,000 and ₦900,000 ($1,467-6,000). The fourth type of communities are those, with annual house rental values above ₦900,000 (>$6,000). The communities in these group are Ikeja, Ikoyi and Victoria Island and they have the highest annual house rental values.

There are two reasons that make the house values by local governments in table 2 different from house values by communities in table 3. The first one is that mean house values by local governments are lower than house values for communities that bear the same name, and this is because of the more aggregative data of the local government.

The second thing that distinguish table 2 from table 3 is that the number of properties in the local governments are more than the properties in the communities. This is because the areas covered by the communities are smaller than the areas covered by the local governments. This account for the reason why house values in the communities are more than the house values in the local governments because the properties are fewer and the mean values are disaggregated. Therefore, the geographical scale on community basis is better than that of the local government.

Table 4 shows the variation in house values by zones. The zonal values could be grouped into four. The first zonal group are zones with house monthly rental values below ₦10,000. The zones consist of Oyingbo, Iponri, Abule Ijesa, Ajegunle, Oju Elegba, Ketu, Isolo, Mushin, Oshodi, Alagbado, Ipaja and Oniwaya. The second type of zonal group are the zones with house monthly rental values between ₦10,000 and ₦25,000. The zones in the second group are Oba's Palace, Yaba, Ijora, Masha, Aguda, Igbobi, Ogba, ltire and Ajao Estate. The house monthly rental values between ₦25,000 and ₦49,000 are those that form the third group and the areas in this group are Marina, Awolowo Way, Agidingbi, Alausa, Adeniyi Jones and Sogunle. The fourth zonal group consists of zones with house monthly rental values above ₦50,000 and they include Alagbon, Ikoyi, Falomo, Eleke Crescent, Victoria Annex, Thomas Okoya, Ikeja G.R.A., Allen Avenue and Opebi. The variations in house rental values by zones are more distinct than house values by communities and local governments because the areas covered are very small. The house rental values in Ikeja by zones is ₦106,000, the rental values by communities in Ikeja is ₦90,000 and the values by local government in Ikeja is ₦71,250. That is, the house rental values in the zone are more than the house rental values in the communities and local governments because the number of houses covered in the zones are fewer and the data are most disaggregated. The grouping of the ones with similar house values also help to identify the housing submarkets that exists in the metropolitan Lagos.

The variation in housing values in table 4 could also be due to differences in socio-economic characteristics of the households. As some areas have very high values while others very low values. Areas like Ikoyi, V.I. and Ikeja G.R.A. which are high income areas could not be compared with Suru1ere, Yaba and llupeju which are medium income areas, and also Mushin, Oshodi and Oyingbo which are low income areas. The characteristics of the households in these zones are related to their housing values. This necessitated the grouping of the zones with similar housing values by non hierarchical grouping technique in the next section.

Spatial Dimension of Housing Submarkets

There is evidence that the variations over space are better studied by the zones defined by the estate values. The pattern is not too clear and there are questions to be answered in this section. The questions are: can the zones be grouped to produce spatial markets? Are these submarkets meaningful geographically? In order to answer the questions, there is need to group the zones on the basis of house values and their attributes.

The spatial variation of housing values in metropolitan Lagos involves the groups of variables of the attribute matrix (35 in all) described in table 5 were subjected to a factor analysis from which emerged three dimensions. The three dimensions explained a total of 62.4 percent of the variance contained in the original variables. The first dimension, which dominates the housing values of metropolitan Lagos accounts for 46 percent of this explained variance while the other two components explain 16.6 and 16.4 percent's respectively (see Table 6). The factor loadings show the extent, to which each variable belongs to or is mostly

associated with the factor, while the factor scores show the performances of the cases on the factors.

The first component is characterized by high positive loadings on the neighbourhood and structural variables and rather low positive loadings on locational attributes. The high positive loadings are on number of kitchen, toilet and bathroom facilities; maintenance of the building; good appearance of the neighbourhood; number of parking facilities; the noise level and number of waste disposal system in the neighbourhood (see Table 5). The interpretation of this factor is facilitated by the pattern of scores shown in table 7. It is a structural neighbourhood dimension. This dimension of housing values divides the city into three important socio-economic groups; the high income, the middle income and the low income. The high income is made up of Ikoyi Park, Alagbon, Falomo Bar Beach, Eleke Crescent, Maroko, Maryland, Ajao Estate, Allen Avenue, Opebl, Ikeja GRA and Adekunle Fajuyi Street. These zones have factor scores ranging between 1.0 and 1.5. The middle, income group, on the other hand, is made up of zones with scores between 0.5 and 0.9 and includes Yaba, Ijesha Tedo, Igbobi, Awolowo Way, Ogba Estate and Ilupeju. While the low income group is made up of Oyingbo, Abule Ijesha, Itire Road, Isolo, Mushin, Oshodi and Oniwaya. These latter zones have low positive and high negative scores -0.6 to 0.4.

The second component loads on socio-economic variables with high positive loadings on such variables as number of rooms, income number of persons in the household and education (see Table 8). The socio-economic variables examined include age of the household heads, education, occupation, number of rooms occupied by household, number of persons in the household, length of stay in the house, type of buildings, income, and house tenure. Consequently, it may be said that this dimension is socio-economic. While the first two components identify both the housing attributes and the socio-economic variables of the city, the third dimension identifies the infrastructural facilities provided in the neighbourhoods. This component, accounting for only 16.4 percent of the variance, loads highly on, the condition of the road, drainage, provision of water, electricity, and recreational facilities. This dimension therefore may be described as the infrastructural facilities of urban housing of' metropolitan Lagos.

Conclusion

This study has shown that the use of small geographical or spatial scale helped to identify similar zones and neighbourhoods that have the same housing values and socio-economic characteristics. This is unlike some of the previous studies that combined wider areas together and failed to identify spatial submarkets. Four different geographical scales were examined to determine the level of disaggregation of data, and the highest level of disaggregative data occurs where cities are divided into small areas by zones. The variations in house values by zones are more distinct than house values for communities and local governments that bear the same name. This is because the areas covered are very small and the number of properties covered are fewer than the· properties in the communities and local governments.

The classification and identification of spatial areas will help planners, estate surveyors and valuers, government policy makers and other allied professionals in housing to make valuable and quality decisions in the location of amenities/ facilities, ratings of properties and collection of tenement rates, and for proper planning. Areas that need urgent attention because they are inhabited by low income earners will be reconsidered and provided with basic facilities while areas with high income earners could be properly organised to contribute to the provision of essential amenities/ services in their neighbourhoods especially in security services (police stations/ posts).

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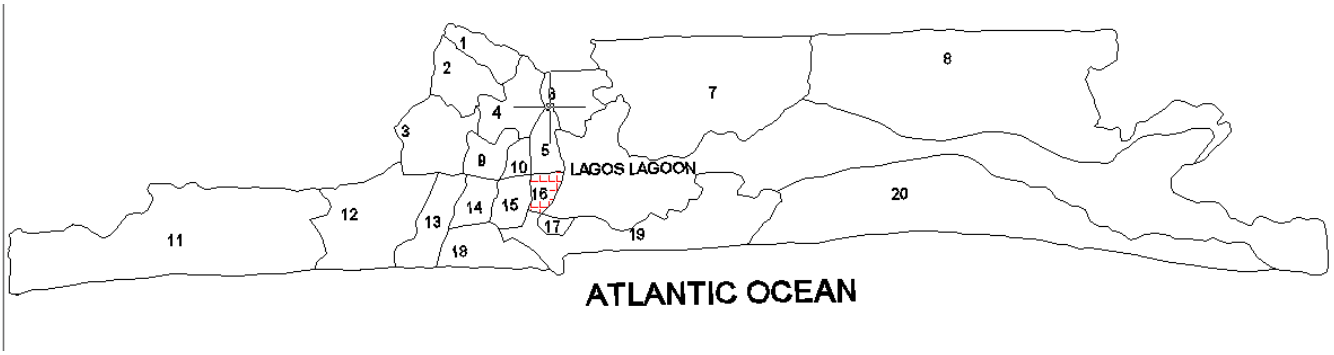

1- Agege	*2- Ifako-Ijaye*	*3- Alimosho*	*4- Ikeja*	*5- .Shomolu*	*6- Koshofe*	*7- Ikorodu*	*8- Epe*	*9- Oshodi-Isolo*	*10- Mushin*
11- Badagry	*12- Ojo*	*13- Amuwo Odofin*	*14- Ajeromi Ifelodun*	*15- Surulere*	*16- Lagos Mainland*	*17- Lagos Island*	*18- Apapa*	*19- Eti Osa*	*20- Ibeju-Lekki*

Figure 1 Map of Lagos State showing the 20 Local Governments

Source: Lagos State Map, 2010
*The Metropolitan Areas only exclude 7, 8, 11 and 20

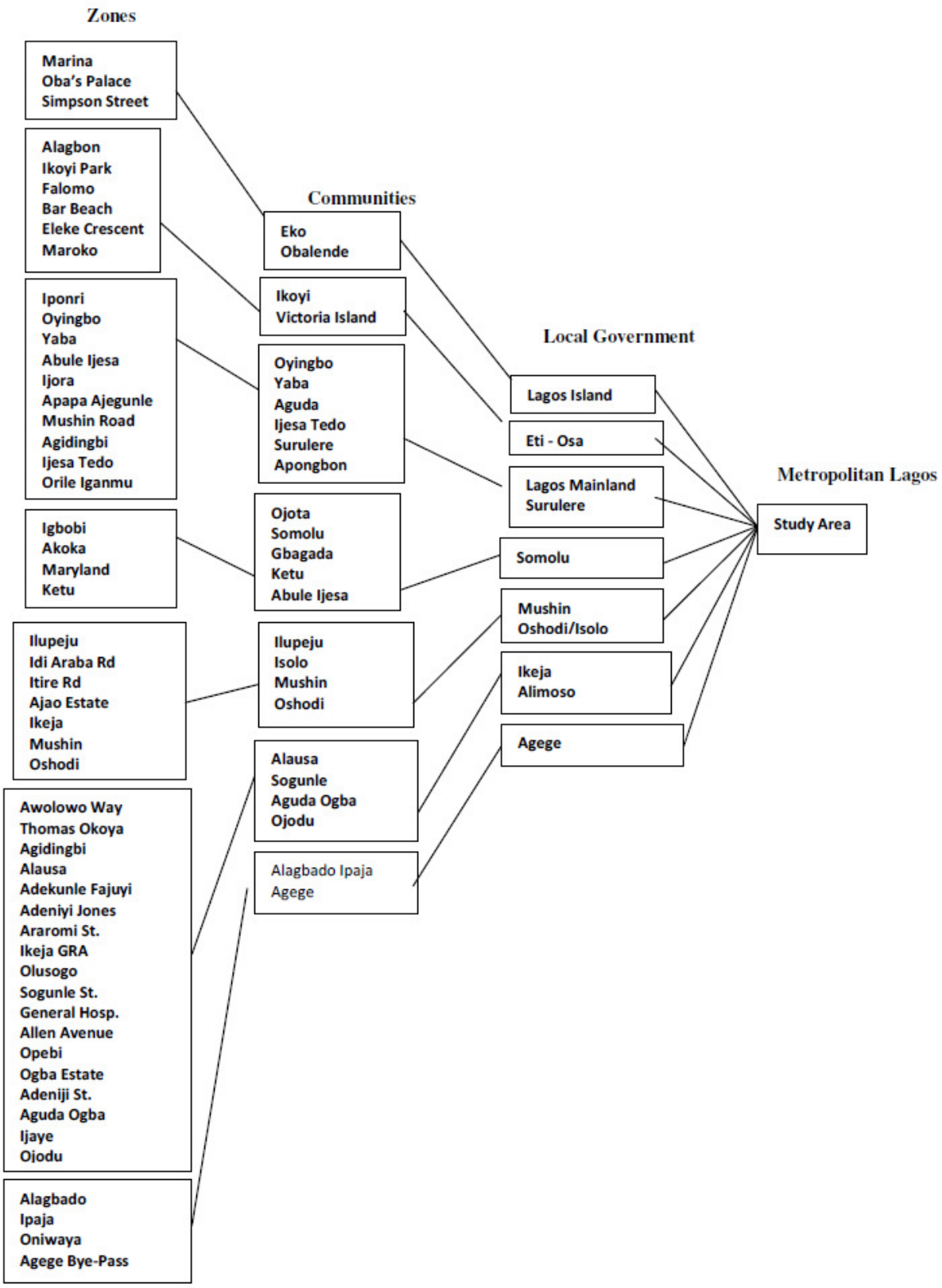

Figure 2 Description of Different Levels of Geographical Scale

Table 1: Spatial Variation of Mean Housing Attributes in Metropolitan Lagos

Zone	Description	INCOME	HRENT	NPERS	NROOM
1	Marina	22078.6	25670.0	5.5	2.1
2	Oba's Palace	18650.0	14337.5	6.3	1.6
3	Simpson	13266.7	13700.0	6.0	2.0
4	Alagbon	129600.0	118000.0	5.4	4.2
5	Ikoyi Park	147000.0	188000.0	5.1	4.0
6	Falomo	86000.0	116250.0	6.0	2.5
7	Bar Beach	186000.0	253000.0	5.0	4.0
8	Eleke Crescent	235000.0	292500.0	6.0	4.0
9	Maroko	327500.0	250000.0	0.8	2.5
10	Iponri	25840.0	8528.0	5.7	1.8
11	Oyingbo	31727.0	4004.5	5.5	1.9
12	Yaba	21400.0	17496.0	3.6	1.8
13	Abule Ijesha	28750.0	7382.5	6.3	2.1
14	Ijora	19085.7	13231.4	6.0	2.6
15	Apapa Ajegunle	24288.9	9177.8	4.6	3.0
16	Masha Road	38231.6	16217.4	7.1	2.6
17	Oju Elegba	16320.0	8300.0	8.0	2.2
18	Aguda	16466.7	16133.8	7.6	2.8
19	Ijesha Tedo	25550.0	8375.0	6.8	3.5
20	Orile Iganmu	15325.0	9000.0	6.0	3.0
21	Igbobi	24815.0	13500.0	6.9	2.7
22	Akoka	22200.0	7320.0	6.6	2.6
23	Mary Land	44000.0	16040.0	4.6	3.8
24	Ketu	20933.3	7766.7	6.4	2.3
25	Ilupeju	22118.7	10318.2	6.3	2.6
26	Idi Araba Road	15123.1	9161.5	5.2	2.4
27	Itire Road	21706.1	12000.0	5.6	2.1
28	Ajao Estate	31444.4	17888.9	4.9	4.0
29	Isolo	24418.2	9363.6	5.6	2.5
30	Mushin	9600.0	8500.0	6.6	2.5
31	Oshodi	19244.0	9055.6	6.7	2.3
32	Awolowo Way	45000.0	27250.0	6.5	3.0
33	Thomas Okoya	82500.0	50000.0	7.0	6.5
34	Agidingbi	35000.0	27600.0	7.5	3.6
35	Alausa	32000.0	27600.0	5.0	2.0
36	Adekunle Fajuyi	90000.0	52500.0	4.0	6.0
37	Adeniji Jones	85000.0	32500.0	8 .0	3.5
38	Araromi Street	31000.0	8000.0	4. 5	6.0
39	Ikeja G.R.A	71250.0	53750.0	6.6	7.0
40	Olusosun	21000.0	19250.0	6.5	2.8
41	Shogunle Street	68000.0	30500.0	5.8	4.3
42	General Hospital	48000.0	30500.0	5.7	3.0
43	Allen Avenue	134000.0	106000.0	8.8	6.8
44	Opebi	122500.0	71250.0	6.0	5.3
45	Ogba Estate	40000.0	16066.7	9.7	4.3
46	Adeniji Street	23000.0	20000.0	7.5	4.5
47	Aguda-Ogba	15866.7	17806.0	4.3	2.0
48	Ijaye	21300.0	7000.0	6.5	2.6
49	Ojodu	16050.0	8000.0	5.3	2.0
50	Alagbado	20355.6	6333.3	6.6	2.2
51	Ipaja	18383.3	6668.3	8.1	2.3
52	Oniwaya	18700.0	7357.1	5.9	2.2
53	Agege Bye-Pass	16314.0	5000.0	7.3	2.9
Total Sample		51526.5	39836.3	6.1	3.3

Source: Field work, 2010

Table 2: Housing Values by Local Governments

Local Governments	Annual House Rental Values (Means) (₦)	No. of Properties
Agege/Ifako-Ijaye	60,658	15,170
Eti-Osa/Ibeju-Lekki	1,860,000	6,471
Ikeja	710,250	13,176
Alimosho	300,000	4,052
Lagos Island/Apapa	180,650	8,046
Lagos Mainland/Ajeromi	150,850	15,070
Mushin	80,400	17,003
Somolu/Kosofe	170,200	27,966
Surulere/Amuwo-Odofin	150,700	18,568
Oshodi/Isolo	80,500	10,298

Sources: Lagos State Valuation Office; Field Work, 2010
Exchange rate: US Dollar 1$=150 ₦ Nigerian Naira

Table 3 Housing Values by Communities

Communities	House Values (mean) (₦)	No. of Properties
1. Ikeja	900,000	9, 124
2. Mushin	100,000	4,500
3. Ketu	200,000	14,200
4. Oshodi	190,200	7,500
5. Apapa	240,500	5,400
6. Surulere	500,000	6,100
7. Yaba	450,000	5,500
8. Ojota	210,000	500
9. Ikoyi	1,500,000	4,139
10. Eko	150,000	4,500
11. V.I	2,500,000	2,500
12. Agege	180,000	6,800
13. Isolo	240,000	5,200
14. Sogunle	220,000	600
15. Oyingbo	210,000	4,200
16. Aguda	200,000	1,500
17. Ojodu	160,000	2,100
18. Ipaja	180,000	8,800
19. Alagbado	200,000	4,700
20. Ijesa Tedo	260,000	5,900
21. Somolu	350,000	9,500
22. Alausa	320,000	500
23. Gbagada	380,000	5,000
24. Abule Ijesa	200,000	3,500
25. Ilupeju	600,000	8,900

Sources: Lagos State Valuation Office; Field Work, 2010

Table 4 Variation of Housing Values by Zones

Zones	Description	No. of Property	House Values (₦)
1.	Marina	4465	25,670.0
2.	Oba's Palace	3234	14,337.5
3.	Simpson Street	347	13,700.0
4.	Alagbon	1023	118,000.0
5.	Ikoyi Park	793	188,000.0
6.	Falomo	516	116,250.0
7.	Bar Beach	1565	253,000.0
8.	Eleke Crescent	1450	292,500.0
9.	Maroko	1124	250,000.0
10.	Iponri	2972	8,528.0
11.	Oyingbo	3324	4,094.5
12.	Yaba	1442	17,496.0
13.	Abule Ijesa	2374	7,382.5
14.	Ijora	2282	13,231.4
15.	Apapa Ajegunle	2676	9,177.8
16.	Masha Road	5608	16,247.4
17.	Oju Elegba	1403	8,300.0
18.	Aguda	5338	15,133.9
19.	Ijesa Tedo	3760	8,375.0
20.	Orile Iganmu	2459	9,000.0
21.	Igbobi	7601	13,500.0
22.	Akoka	10219	7,320.0
23.	Mary Land	1423	15,040.0
24.	Ketu	8723	7766.7
25.	Ilupeju	6270	10318.2
26.	Idi Araba Rd	3684	9,461.5
27.	Itire Rd	4311	12,000.0
28.	Ajao Estate	2738	17,888.9
29.	Isolo	3270	9,363.0
30.	Mushin	1834	8,500.0
31.	Oshodi	5194	9,055.6
32.	Awolowo Way	1207	27,250
33.	Thomas Okoya	408	50,000.0
34.	Agidingbi	72	27,500.0
35.	Alausa	305	27,500.0
36.	Adekunle Fajuyi	99	52,500.0
37.	Adeniyi Jones	150	32,500.0
38.	Araromi St.	428	8,000.0
39.	Ikeja GRA	1277	53,750.0
40.	Olusosun	5011	19,250.0
41.	Sogunle St.	1070	30,500.0
42.	General Hosp.	743	30,500.0
43.	Allen Av.	1415	106,000.0
44.	Opebi	982	71,250.0
45.	Ogba Estate	858	16,666.7
46.	Adeniji St.	285	20,000.0
47.	Aguda Ogba	730	17,666.1
48.	Ijaye	1022	7,000.0
49.	Ojodu	2235	9,000.0
50.	Alagbado	6899	6,333.3
51.	Ipaja	4027	6,658.3
52.	Oniwaya	2009	7,357.1
53.	Agege Bye-Pass		5,000.0

Source: Valuation Office, Ikeja, Lagos, Field Work, 2010

Table 5 Rotated Factors Loading on Spatial Structure of Housing Values in Lagos Metropolitan Areas

VARIABLES	1	2	3
OCCUP	0.496	0.361	0.144
INCOME	-0.116	0.899	0.078
EDUCQ	-0.024	0.908	0.080
NPERS	0.292	0.719	0.082
NROOM	-0.005	0.912	0.021
PWORK	0.122	0.607	0.269
TCOST	0.218	0.743	0.018
TAREC	-0.019	0.819	0.090
PEOPLE	0.476	0.512	0.428
AREA	-0.098	0.733	-0.081
HRENT	-0.274	0.669	-0.192
BUILD	0.402	0.361	0.102
HAPP	0.766	0.361	0.182
MAINT	0.775	-0.019	0.095
PTRANS	0.606	0.053	0.160
PARK	0.633	-0.046	0.198
ELECT	0.271	0.081	0.460
FLOOD	0.195	0.100	0.063
KITCHEN	0.849	0.043	0.010
TOILET	0.822	0.026	0.131
BATHS	0.020	0.062	0.115
REFUSE	0.632	0.097	0.200
CRIHE	0.190	0.181	0.123
NOISE	0.636	-0.042	0.192
DRAIN	0.546	-0.171	0.413
WATER	0.388	0.019	0.704
ROAD	0.361	0.117	0.056
POLLUTE	0.344	0.019	0.704
POLICE	0.177	-0.199	0.004
RECREAT	0.548	-0.010	0.488
PRISCH	0.118	0.034	0.191
SECSCH	0.064	0.102	-0.130
PUBHOSP	0.091	0.012	0.179
PCLINIC	0.178	-0.151	0.104
ASHOP	-0.057	-0.020	0.011

Table 6 Dimensions of House Values in Metropolitan Lagos

	1	2	3
Eigen Values	10.275	5.808	2.289
% Total	29.4	16.6	16.4
Cummulative %	29.4	46	62.4

Table 7 Zonal Factor Scores on the Dimensions of Housing Values in Metropolitan Lagos

Zone	Descriptions	1	2	3
1	Bariga	1.163	-1.070	-0.976
2	Oba's Palace	0.651	0.586	1.516
3	Simpson Street	-0.692	-0.675	-1.726
4	Alagbon	1.259	1.760	0.759
5	Ikoyi Park	1.666	1.896	9.516
6	Palomo	1.120	1.596	9.617
7	Bar Beach	1.596	-1.638	6.673
8	Eleke Crescent	1.666	1.679	-9.662
9	Maroko	1.650	1.923	-9.736
10	Ipori	6.125	4.675	1.650
11	Oyingbo	9.360	0.692	1.765
12	Yaba	6.390	6.975	0.236
13	Abule Ijesha	9.316	4.113	9.326
14	Ijora	2.258	-d.416	1.450
15	Apapa Ajegunle	0.620	0.697	-0.317
16	Marsha Road	1.213	1.673	0.115
17	Oju Elegba	0.260	0.457	-6.626
18	Aguda	6.315	0.528	-1.116
19	Ijesha Tedo	-9.	-210	-1.220
20	Orile Igammu	6.615	9.586	1.412
21	Igbobi	0.968	1.213	-1.683
22	Akoka	-0.310	-0.163	1.796
23	Maryland	1.126	1.536	1.815
24	Ketu	0.259	0.375	1.526
25	Ilupeju	-9.354	0.997	9.357
26	Idi Araba Road	0.316	0.395	1.956
27	Itire Road	-0.106	0.150	1.999
28	Ajao Batete	1.910	1.575	0.681
29	Isolo	-0.210	0.175	1.362
30	Mushin	-0.116	0.299	0.642
31	Oshodi	-0.256	0.560	0.153
32	Awolowo Way	-0.920	1.895	1.236
33	Thomas Okoya	1.246	-1.390	-0.780
34	Agidingbi	0.270	0.597	0.290
35	Alausa	0.915		1.115
36	Adekunle Fajuyi	1.210	1.515	0.251
37	Adeniyi Jones	1.116	1.615	0.896
38	Araromi Street	0.210	0.369	0.923
39	Ikeja G.R.A		-1.650	-0.710
40	Olusosun	0.415	0.639	1.223
41	Shogunle Street	0.850	-0.370	1.116
42	General Hospital	0.916	1.216	1.662
43	Allen Avenue	1.456	1.615	0.836
44	Opebi	1.520	1.832	0.731
45	Ogba Estate	0.996	1.210	0.996
46	Adeniji Street	0.260	0.530	0.552
47	Aguda Ogba	0.160	0.673	1.152
48	Ijaye	0.263	0.638	1.145
49	Ojodu	0.312	0.915	0.981
50	Alagbado	0.560	0.916	1.921
51	Ipaja	0.916	0.930	0.820
52	Oniwaya	-0.630	-0.815	0.932
53	Agege Bye-pass	0.220	0.572	1.110

Source: Field work, 2010

Table 8 Analysis of Housing Variables for Lagos Metropolitan Socio-Economic Groups

Variable	Sub-group 1 Mean	Sub-group 2 Mean	Sub-group 3 Mean	Sub-group 4 Mean	Overall Mean
INCOME	120668.3	50114.5	33187.6	20101.0	515226.5
HRENT	108928.4	45000.3	17829.5	9032.3	39836.3
NROOM	6.6	4.5	3.0	2.6	3.3
AREA	1698.4	1200.0	1051.0	499.6	963.9
AGE	53.0	52.0	53.0	49.9	51.1
NPERS	6.1	6.1	6.2	6.1	6.1
LAREA	17.1	16.8	16.6	16.5	16.7
LHOUSE	18.5	20.4	20.5	20.1	19.7
TCOST	151.0	900.0	1800.0	1850.0	1713.0
HAPP	0.9	0.8	0.8	0.6	0.7
BUILD	0.8	0.7	0.7	0.6	0.7
TOILET	3.2	2.1	2.0	1.5	2.1
PARK	3.6	2.4	1.3	0.8	1.3
PLAY	3.7	1.6	0.8	0.5	0.8
WATER	0.9	0.9	0.8	0.6	0.7
MAINT	0.9	0.9	0.8	0.6	0.7