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Hierarchy of service centres in Ijesaland, Nigeria

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This study identified and analyzed the order of service centres in Ijesaland, Nigeria. Both primary and secondary data types were used. The primary data were obtained through household and management questionnaires, field observations and in-depth interviews. Only 199 out of 488 settlements in Ijesaland were selected for the study based on the availability of any one of the identified 27 Central Place Functions. At the initial stage, none of the settlements was treated as superior to any other; this classification was identified only after analyzing the groupings. Data were analysed using Principal Component Analysis (PCA). The PCA ordination of the settlements using the first two components (supermarkets and secondary schools) which accounted for 79.1% of variance in the data set revealed six orders of centres in the study area. These are: 1 Main Centre, 3 Higher-Order Centres, 20 Intermediate Centres, 45 Lower-Order Centres, and 130 Rural Centres. The study underscored that traditional ethnographic regions are often characterized by regional imbalance. Spatial and social disparities in Ijesaland are largely tied to the spatial arrangement of communication network.

Key words: Hierarchy, settlements, Ijesaland, central place functions, service centres, Yoruba land, core - periphery, primate city.

INTRODUCTION

Walter Christaller (1933), in explaining the underlining principles of his Central Place Theory assumed hexagonal market areas based on the principle of real range of goods. He posited a regularly spaced array of settlements that form a triangular lattice and others that are located at the centre of the hexagon. Christaller hinted that higher order central places are more widely spaced than lower order places. The latter are nested within the market areas of the former with regards to certain rules. Christaller's main objective was to present a model that would include the greatest possible coverage from the least number of supply units. He therefore introduced some descriptive terminologies of the elements to be used: threshold, range, central places of higher order, central places of lower order and complementary region. While threshold implies the lower limit of demand that would support a business, the range is the maximum distance over which transactions can take place. Central places of higher order are those centres with influence covering a large area and the lower order areas are just the reverse

the reverse. Complementary areas refer to the region served by a central place. In essence, Christaller was of the view that higher order places offer more services, wider range of goods, have large populations, more trade areas, and more establishments and provide better opportunity for diversification of business activities than the lower order settlements.

Losch (1938) opined that Christaller's conditions were too rigid and argued that settlements could be concentrated into sectors, which are separated with varying population. He also observed that small settlements are located about halfway between two larger settlements. On the $K = 3, 4, \text{ and } 7$ arrangements, Losch pointed out that they were the smallest of a very large number of possible market area structures; he therefore identified 150 such areas. In sum, Losch was of the view that settlements performing the same number of functions do not necessarily provide the same kinds of functions.

A core region or central place is a settlement that constitutes itself into a position of authority with respect to its control of the generators and diffusers of impulses of development. Settlements that consistently have disproportionately smaller shares of the indicators than of population are regarded as peripheries or zones of influence. There are some central places with locations that favour them to cater for more people and offer more specialized

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services. Such settlements tend to grow progressively larger, their size depending on their degree of specialization, therefore producing various types of sub-centres with populations and zones of influence. Some centres are located on transport route linking them with the outside world or some industrial area. The existing transport route influences the development and modification of the accessibility pattern in the area. The resultant 'nodal' town may grow to become dominating metropolis in the region although, later, the town may attract many other functions such that its primary role as a transport centre is overshadowed. All these arrangements often give rise to hierarchy of centres.

There is very scanty literature on the hierarchy of settlement (or service centres) in Nigeria. One of such was the work of Abiodun (1967) who established the existence of hierarchy of settlements in Ijebu Province of South-western Nigeria through historical factors and the level of economic development in the area. Abiodun identified 74 settlements as qualified for treatment through the use of Principal Component Analysis but only 36 were found to contain certain traits of Central Place Theory's requirements.

Mabogunje (1968) linked the development of hierarchy of service centres in South Western Nigeria with the old "Yoruba Empire" which was made up of numerous kingdoms such as Oyo, Owu, Ife, Ijebu, Ijesa, Ekiti, Ibadan, Egba, and Igbomina. The major trading centre was at Ibadan which later developed to become the largest urban settlement in the region. In sum, Mabogunje concluded that the distribution pattern of cities in Yorubaland can be said to merely approximate Christaller's Central Place Hierarchy.

At the national scale, Salau (1979) identified four levels of central places in Nigeria. The first is the national metropolis, which according to him, is Lagos regardless of the movement of the national capital to Abuja. The second ones include national metropolitan centres that function effectively on a national level consisting of Ibadan, Kano, Port Harcourt and Enugu. In the third category are those that function more effectively at inter-regional level than at national levels such as state capitals and other major centres like Onitsha, Zaria and Aba. The sub-regional centres such as Local Government Headquarters and other medium sized towns fall under the fourth category.

In Nigeria, more Local Government Areas were created as an attempt to expand and create more higher-order centres at the sub-regional level. However, most of these Local Government Headquarters have been found wanting in functioning as expected. In addition, the available literatures have revealed that most of the intra-regional linkages continue to revolve around few higher-order centres at the expense of the immediate lower-order and rural centres. Furthermore, it is observed that most of the available literatures on hierarchy of settlements, particularly in south-western Nigeria, are really studies on

'urban hierarchy' and they are more than three decades old. In view of this background, this paper was set to identify and explain the hierarchical order and categories of service centres that characterize Ijesaland, Nigeria.

The Ijesaland of Nigeria, as narrated by Peel (1983), was administered under one large district called Ijesa Council between 1900 and 1963 with the headquarters at Oke-Imo in Ilesa. In 1963, through the Republican Constitution, Ijesaland was decentralized into Ijesa South and Ijesa North divisions. The number of administration units in Ijesaland increased to three in 1976 through Local Government Reform Acts; these are Ilesha, Ijesa North and Atakunmosa Local Government Areas with the headquarters at Ilesha, Ijebujsa and Oshu, respectively. Ijesa North Local Government Area was renamed Obokun Local Government Area in 1978 with the headquarters still at Ijebujsa. Aguda (1994) reports that the number of Local Government Areas in Ijesaland increased to eight in 1982, namely: Atakunmosa East, Atakunmosa West, Atakunmosa Central, Ilesa, Obokun North, Obokun South and Oriade Local Government Areas. However, these eight Local Government Areas did not exist for long as they were abrogated by the 'new' Federal Military Government, thus reverting to the old ones. The present six political divisions in Ijesaland were created in 1997. These are: Atakunmosa East, Atakunmosa West, Ilesa East, Ilesa West, Obokun and Oriade Local Government Areas with the headquarters at Iperindo, Osu, Iyemogun Road (in Ilesa), Ereja Square (also, in Ilesa), Ibokun, and Ijebujsa, in that order (Osun State Statistical Year Book, 2006). Both Ilesa East and West Local Government Areas are located within Ilesa Township.

The study area

The study was conducted in Ijesaland, South Western Nigeria. Ijesaland lies between 7° 17' N and 7° 50' N and 4° 33' E and 5° 10' E (Figure 1). The area falls within the humid tropics characterized by high temperature and high rainfall. The terrain is gently undulating lying roughly between 800 ft around Oni valley and 2,000 ft above sea level in the eastern borderland with Ekiti. Also, much of the landscape is dotted by steep inselbergs particularly at Ondo – Ekiti ends. The soils are largely a mixture of sands and clays on the surface, in different proportions from one part of the region to another, underlay by grey granite. Forest soils with high percentage of clay are also found in the region (Peel, 1983; Ekanade, 1984).

Ijesaland comprises of five distinctive though related settlers. The binding tie between the groups is that they all claim to share the same legend of Ife dynastic origin. The first group includes those occupying the area (the original inhabitants) prior to the establishment of Ilesa, which later grew to become the capital city of the sub-ethnic group. Among these earlier settlements are Ipetu, Ibokun, Ijebu-Jesa, Esa-Oke, Esa-Odo, Ibodi, Otan-Ile, Ilare, Okemesi, Ilowa and Erinmo. Another group includes

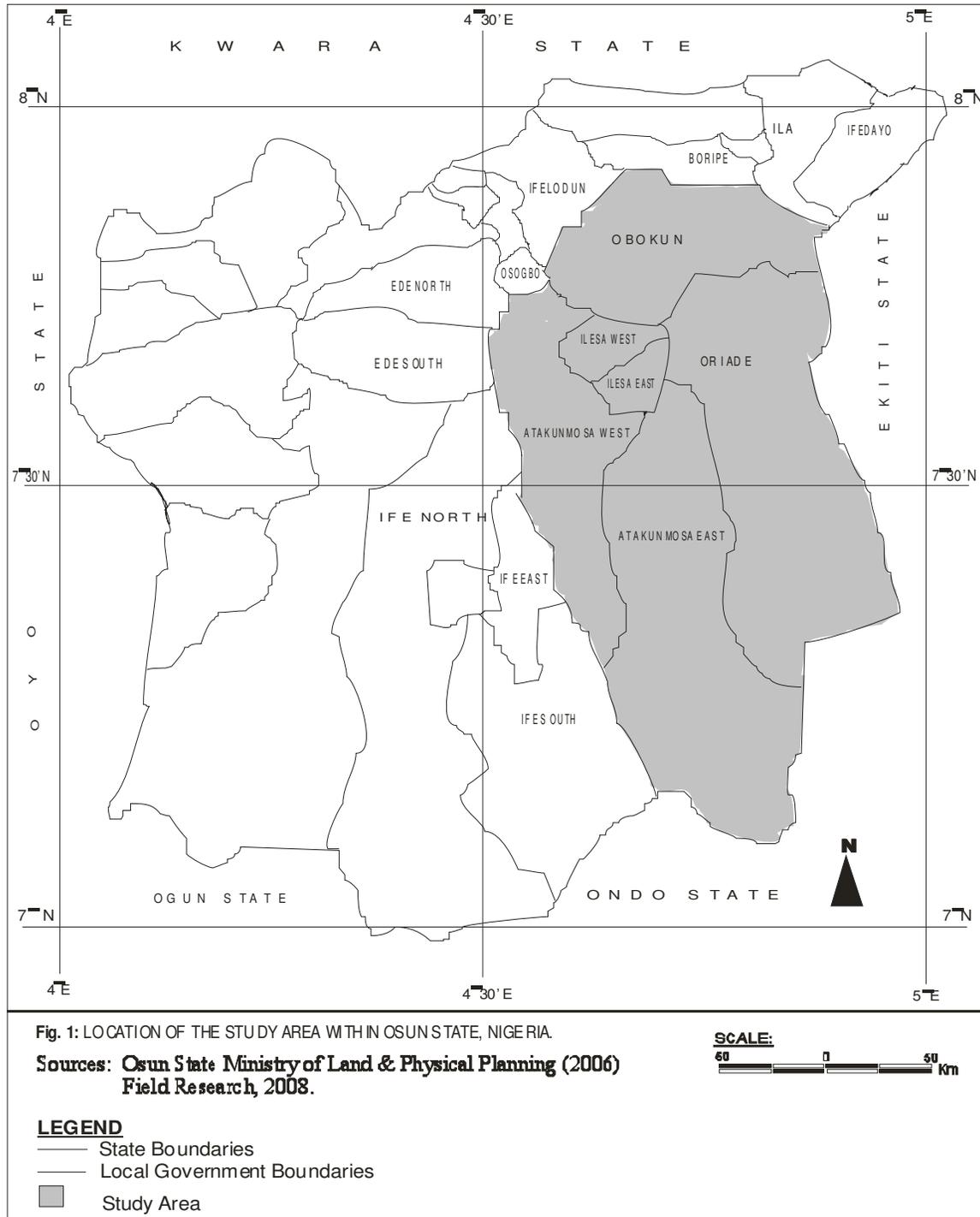


Figure 1. Location of the study area within Osun State, Nigeria.

includes all settlements that were founded by immigrants who left their original homes for one reason or the other, and asked Owa of Ilesa to give them land for housing, hunting and farming. It was in this wise that migrants from Ile-Ife founded Ifewara, Igangan by those from Igbomina and northwest Ekiti, and Ise by migrants from southern Ekiti (Peel, 1983).

The third category of Ijesa settlements comprises those that were directly close to Ilesa and was ruled by Loja installed by the Owa. The Loja-dom settlements include Ere, Ilawun, Osu, Iloba, Odogbo, Idominasi, Iwara and Ajido. Closely related to this group are those settlements where Loja-dom has now been hived off such as Iwara, Ilaa, Ikiyinwa, Iponda, Iwoye Ijesa and Ijeda. The last

group comprises the settlements founded from Ilesa at the tail end of the nineteenth century, between 1896 and 1912. Among these are Itaapa, Faforiji, Eti-Oni, Kajola, Ayinrin, Temidire and Ajebandele.

There are two groups of settlements that were detached from Ijesaland, the first group comprises settlements that were initially part of Ijesaland but are now regarded as independent kingdoms such as Akure, Ido Ekiti and Ogotun. The other category includes those lost to the more powerful Oyo kingdom. Between 1820s and 1850s, Ilesa had lost Ibokun, Ifewara and Ijebu-jesa to Ibadan warriors; but these were reclaimed back, through wars, before the end of 1850s. Much of the northern part of Ijesaland comprising Igbajo, Otan-Ayegbaju, Ada and Iresi were lost, totally, to Oyo Kingdom in the 1870 wars. In 1880, Ilesa became incorporated in the protectorate of Lagos as a substantial administrative centre.

Ilesa, the traditional and political capital of Ijesaland, was established sometimes between the 6th and 9th centuries with the aboriginal quarters at Okesa and Ijoka (Peel, 1983). Ilesa was originally, as Oni (1968) puts it, "a collection of a number of villages and hamlets scattered about but not far from one another". The town is headed by a monarch called Owa who is superior to all other rulers in the ethnographic region of Ijesaland. In modern times, the economic activities of Ilesa have advanced beyond farming and little indigenous industries to manufacturing, commercial and tertiary activities.

The Ijesas are great farmers especially in tree crops such as cocoa, kolanut, palm produce, plantain and fruits. Besides farming, little local crafts like pottery and weaving (mat and clothing materials) were also practiced. In addition, the Ijesas are 'super traders' that do not toil with their investments, which eventually earned them the nickname 'Osomaalo' (I shall remain crouch till I collect my money). Their location, roughly midway between Benin and Oyo kingdoms afforded them high opportunity for trading activities with their neighbours to various directions.

Waves of modern developments found their ways into Ilesa with the arrival of Europeans in the town towards the end of 19th century. Aguda (1994) observed that the arrival of Europeans in Ilesa brought improvements to the socio-economic tones of the town. In this regard, government quarters were built at Oke Imo and, consequently, health centres, educational institutions, religious centres and administration units were established in Ilesa.

MATERIALS AND METHODS

Data were obtained using questionnaires. Two sets of questionnaires were employed for use: household and Management Inventory Questionnaires. The Household Questionnaire was administered on the selected heads of households in the study area. Management Inventory Questionnaire was administered on those groups who have direct influence on the socio-economic development and physical growth of the study area. Such groups include the towns' Development Associations (Like Descendant Union, Home Town Association, Student Union, Social Organisation, Clubs and religious groups). Others include public institutions (such as schools,

health centres, ministries and local government secretariats), private establishments (such as industrial, educational, financial, health, commercial, social and economic institutions) and identified knowledgeable community leaders. In-depth interviews and field observation were adopted to complement information gathered through the questionnaires. Secondary data were obtained from official and unofficial published and unpublished gazettes.

Settlements were selected based on their possession of at least one of the identified 27 central functions (Table 1) that are characteristic of the area. At the initial stage, all the services were regarded as equal and none of the settlements was classed into any order. This classification was identified only after analyzing the groupings. 199 settlements had at least one of the listed 27 central functions were selected for the study. In each of the settlements, 5% of heads of households were selected. The selection was based on the principles of stratified sampling procedure involving division of the whole Ijesaland into six zones: A, B, C, D, E and F directly aligned with current political division of the existing Local Government Areas (Table 2). Each of the six zones was further divided into blocks, which are the individual settlement units. The number of blocks in each zone is a direct function of the number of settlements in each Local Government Area.

The data collected from various sources were analysed through principal component analysis. The procedure involved the identification of variables and the search for the components, which helped in reducing the dimensions of variation and, consequently, attaching meanings to them. In this wise, 27 primary variables tagged X_1, \dots, X_{27} were identified and grouped into seven sectors (see Table 1).

RESULTS

Principal Components Analysis yields the component loadings and the communality values of the 27 central functions as contained in Table 3. A further analysis indicated that only three of these central functions were really significant; these are supermarkets, small-scale Industries and secondary schools (Table 4). The component loadings of the three new components on each of the original twenty-seven primary variables shows that supermarket has correlations greater than 0.5 with twenty-one components and a communality value of 98.9%. Small-scale industry follows with communality value of 98.5% and minimum of 0.5 correlation coefficients with twenty-two components. The third component, secondary schools, also has a communality value of 98.5% but has minimum of 0.5 correlations with twenty-one components. It is interesting to note that there is none of the twenty-seven primary variables with a communality value of less than 50% and twelve of them extracted 90% and above communality value each (Tables 3 and 4).

The first three principal components: supermarket, small-scale industry and secondary schools have a total eigenvalue of 22.59 contributing 83% of the total variance. The first component alone has an eigenvalue of 18.75 and 69.4% of the total variance (Table 4). Based on the results in Table 4, three distinctive classes of services are easily identifiable in the table. These are supermarkets as class 1; small scale industry as class 2; while secondary schools constituted class 3 (Table 5).

In view of this classification, three broad orders of service centres were identified in Ijesaland. The first-order

Table 1. List of central place functions.

Sector	Central services
Commerce	Daily Market (with Lock-up Stalls)
	Periodic Market (with Lock-up Stalls)
	Supermarkets
	Large Scale Industry
	Small Scale Industry
Education	Nursery / Primary Schools
	Secondary Schools
	Technical College
	Tertiary Institution
Financial Institution	Commercial Banks
	Community Banks
Health	Specialist/ Teaching/ State/ General Hospital
	Primary Health Centre/ Clinic/ Maternity/ Dispensary
	Comprehensive Health Centre
Public/ Social Services	Media Station
	Newspaper / Publishing House
	Newspaper Stand
	General Post Office
	Postal Agency
	High/ Magistrate Court
	Telecommunication
	Police Station
	Electricity
	Piped Water
	Hotel/ Rest House
	Tarred Road (intra-settlement)
	Local Government Secretariat

Table 2. Distribution of sample households in the study area by local government areas.

Zone	Local Government Area	Total no of Settlements in L. G. A.	No of settlements analyzed	Population of sampled settlements	Total no of households in L. G. A.	Sample size (at 5% of households)
A	Atakunmosa East	158	73	66, 435	11, 494	578
B	Atakunmosa West	104	49	44, 263	17, 730	887
C / D*	Ilesa East / West	01	01	206, 379	51, 632	2,582
E	Obokun	131	34	75, 741	18, 822	941
F	Oriade	94	42	121, 232	25, 086	1,254
	TOTAL	488	199	514, 053	124, 764	6,242

Source: Field Research, 2008. * Ilesa East is C and Ilesa West is D (the two L. G. As are located within Ilesa Township).

included the settlements that had all the three classes of services; second-order centres contained only two of the classes; and only one of the classes was in the third-order centres (Table 5). These are tagged Higher-order, Intermediate and Lower-order Centres, respectively.

The results in Table 5 showed that only 69 out of the 199 settlements that initially qualified for the analyses had at least one of the three higher-order services. Of these, there were 20 higher-order, 10 intermediate, and

39 lower-order centres. However, this classification can be regarded as too broad. For instance, Ilesa with a total of 202 higher-order services was classed with Iloko which had only 4. Thus, a further analysis of the result revealed six distinctive orders of service centres in the study (Table 6).

Table 6 shows the number of central functions characteristic of each group in the study area. The table shows that there was only one Main Centre in Ijesaland, Ilesa

Table 3. Principal component analysis of the 27 central functions in Ijesaland.

Variable	Component Loadings			Communality h ²
	1	2	3	
X ₁	0.619	0.636	0.055	0.791
X ₂	0.465	0.562	- 0.083	0.538
X ₃	0.942	- 0.261	- 0.183	0.989
X ₄	0.907	- 0.322	- 0.214	0.972
X ₅	0.971	- 0.147	- 0.145	0.985
X ₆	0.959	- 0.150	- 0.186	0.977
X ₇	0.962	- 0.178	- 0.169	0.985
X ₈	0.660	0.081	0.444	0.640
X ₉	0.833	- 0.101	0.085	0.711
X ₁₀	0.942	0.003	- 0.069	0.892
X ₁₁	0.948	- 0.218	- 0.177	0.977
X ₁₂	0.968	- 0.067	- 0.067	0.945
X ₁₃	0.927	- 0.032	0.011	0.860
X ₁₄	0.788	- 0.159	0.165	0.674
X ₁₅	0.917	- 0.301	- 0.071	0.937
X ₁₆	0.974	- 0.067	- 0.131	0.970
X ₁₇	0.815	0.121	0.367	0.814
X ₁₈	0.932	0.094	- 0.152	0.901
X ₁₉	0.837	- 0.024	0.352	0.826
X ₂₀	0.952	- 0.046	- 0.089	0.916
X ₂₁	0.767	- 0.042	0.479	0.819
X ₂₂	0.818	0.329	- 0.053	0.780
X ₂₃	0.254	0.621	- 0.240	0.508
X ₂₄	0.385	0.706	- 0.164	0.674
X ₂₅	0.959	0.066	- 0.096	0.934
X ₂₆	0.521	0.650	0.076	0.700
X ₂₇	0.854	- 0.064	0.379	0.877

Source: Field Research.

with a total of 202 higher-order services.

Three Higher-order Centres were identified. These are Ibokun and Ijebujsa with 19 higher-order services each, and Ipetu-Ijesa with 18 higher-order services. Ijebujsa and Ibokun are political headquarters of Oriade and Obokun Local Government Areas, respectively. Therefore, they can be said to have enjoyed growth pole advantage and, which has semblance with the propositions of $K = 7$ principles of the central place theory. However, Ipetu-Ijesa is more peopled than either Ijebujsa or Ibokun. Reasons available for this is linked with the nature of the terrain which is gently undulating to accommodate human settlement, fertility of the soil that encourages agricultural activities, availability of surface water for both human consumption and farming activities, and location on a major route between the western and eastern part of Nigeria (Peel, 1983).

There were twenty Intermediate Centres in Ijesaland, which had between 3 and 13 higher-order services with at least one each of Classes 1 and 3 central functions. Osu and Iperindo the headquarters of Atakunmosa West

and East Local Government Areas, respectively fall into this category. There were some centres in this class that did not have Class 2 function at all; they are so classed because of their possession of at least one Class 1 higher-order service. The populations of these centres range between 5,511 (Erinmo Ijesa) to 13,816 (Esa-Oke). Erin Ijesa, Erin Oke and Erinmo Ijesa are located on major transport routes. Erinmo, particularly, is at the junction of road networks linking Ibadan with Ile-Ife, Akure and Ado Ekiti. In effect of this, the growth of the three settlements can be likened to Christaller's $K = 4$ network principles. Esa Oke has a tertiary institution containing more than 25,000 people (both staff and students). The institution is an attracting factor to other socio-economic facilities.

The table reveals further that there were 45 Lower-order Centres in Ijesaland. These are settlements having between 2 and 6 of the higher-order services made up of only classes 2 and 3 central functions. In view of this, a comprehensive hierarchy of service centres in Ijesaland was attempted as contained in Table 7. The 130 Rural

Table 4. Component loadings of central functions in Ijesaland.

Component	Initial Eigenvalue			Extraction sum of squared loadings		
	Total	Variance %	Cumulative %	Total	Variance %	Cumulative %
X ₁	18.75	69.444	69.444	18.75	69.444	69.444
X ₂	2.61	9.671	79.115	2.61	9.671	79.115
X ₃	1.23	4.560	83.676	1.23	4.560	83.676
X ₄	0.94	3.462	87.137			
X ₅	0.73	2.713	89.851			
X ₆	0.59	2.187	92.037			
X ₇	0.38	1.404	93.441			
X ₈	0.33	1.231	94.672			
X ₉	0.28	1.051	95.723			
X ₁₀	0.24	0.900	96.624			
X ₁₁	0.18	0.654	97.278			
X ₁₂	0.15	0.557	97.835			
X ₁₃	0.13	0.469	98.304			
X ₁₄	0.10	0.373	98.677			
X ₁₅	0.09	0.318	98.995			
X ₁₆	0.06	0.225	99.120			
X ₁₇	0.05	0.193	99.413			
X ₁₈	0.04	0.162	99.575			
X ₁₉	0.032	0.118	99.693			
X ₂₀	0.030	0.110	99.803			
X ₂₁	0.017	0.063	99.866			
X ₂₂	0.013	0.047	99.913			
X ₂₃	0.009	0.032	99.945			
X ₂₄	0.008	0.028	99.973			
X ₂₅	0.004	0.016	99.989			
X ₂₆	0.003	0.010	99.999			
X ₂₇	0.0003	0.001	100.000			

Source: Derived from Table 3.

Table 5. Order of centres in Ijesaland (Nigeria) based on three principal components.

s/n	Settlements	Supermarkets	Small Scale Industries	Secondary Schools	Total	Order of Centre
1	Ilesa	61	59	82	202	Higher-order
2	Ibokun	4	8	7	19	Higher-order
3	Ijebujesa	4	7	8	19	Higher-order
4	Ipetu Ijesa	3	6	9	18	Higher-order
5	Esa Oke	3	6	4	13	Higher-order
6	Erinmo Ijesa	3	4	3	10	Higher-order
7	Imesi Ile	2	4	4	10	Higher-order
8	Erin Ijesa	1	4	5	10	Higher-order
9	Erin Oke	2	3	4	09	Higher-order
10	Osu	1	3	5	09	Higher-order
11	Dagbaja	2	3	3	08	Higher-order
12	Ifewara	1	2	5	08	Higher-order
13	Ijeda	1	3	4	08	Higher-order
14	Ikeji Arakeji	2	2	3	07	Higher-order

Table 5. Contd.

15	Ilase	1	3	3	07	Higher-order
16	Ilowa	2	3	2	07	Higher-order
17	Iperindo	1	2	4	07	Higher-order
18	Otan Ile	2	4	1	07	Higher-order
19	Ikeji Ile	1	2	3	06	Higher-order
20	Idominasi	1	2	2	05	Higher-order
21	Iloko	1	2	1	04	Higher-order
22	Ere Ijesa	1		3	04	Intermediate
23	Ilare	1		3	04	Intermediate
24	Ipetu Ile	1		3	04	Intermediate
25	Iwoye Ijesa		2	4	06	Intermediate
26	Faforiji		2	3	05	Intermediate
27	Kajola		1	2	03	Intermediate
28	Ibodi		1	2	03	Intermediate
29	Igangan		1	1	02	Intermediate
30	Ikiyinwa		1	1	02	Intermediate
31	Ilahun		1	1	02	Intermediate
32	Apoti Ayetoro			3	03	Lower-order
33	Ilo Ayegun			3	03	Lower-order
34	Ise Ijesa			2	02	Lower-order
35	Omo Ijesa			2	02	Lower-order
36	Orisunmibare			2	02	Lower-order
37	Owena Ijesa			2	02	Lower-order
38	Aba Isegun			1	01	Lower-order
39	Ada Owode			1	01	Lower-order
40	Agbon			1	01	Lower-order
41	Ajido		1		01	Lower-order
42	Alaka			1	01	Lower-order
43	Amuye Ajebamidele			1	01	Lower-order
44	Arewa			1	01	Lower-order
45	Arowaji		1		01	Lower-order
46	Arowojobe			1	01	Lower-order
47	Bolorunduro			1	01	Lower-order
48	Epe			1	01	Lower-order
49	Esa Odo			1	01	Lower-order
50	Idoka			1	01	Lower-order
51	Itangunmodi			1	01	Lower-order
52	Iwara			1	01	Lower-order
53	Iwaraja			1	01	Lower-order
54	Iwaro			1	01	Lower-order
55	Kajola Adedeji			1	01	Lower-order
56	Kiloru			1	01	Lower-order
57	Odo Ijesa			1	01	Lower-order
58	Odogbo			1	01	Lower-order
59	Oko Ago			1	01	Lower-order
60	Oko Asalu			1	01	Lower-order
61	Olabosipo			1	01	Lower-order
62	Olowu			1	01	Lower-order
63	Onikoko			1	01	Lower-order
64	Orisunmibare Number			1	01	Lower-order

Table 5. Contd.

65	Osunjela	1		01	Lower-order
66	Owode		1	01	Lower-order
67	S. B. Ojo		1	01	Lower-order
68	Sokoto		1	01	Lower-order
69	Temidire		1	01	Lower-order
TOTAL		105	149	233	487

Source: Field Research, 2008.

Table 6. Comprehensive classification of service centres in Ijesaland.

Order of Centres	No of Centres	Number of central functions			
		Class 1	Class 2	Class 3	Total
Main Centre	1	61	59	82	202
Higher-order Centres	3	2 - 4	5 - 8	6 - 9	13 - 21
Intermediate Centres	20	1 - 3	0 - 4	1 - 6	3 - 13
Lower-order Centres	45	-	0 - 2	1 - 4	1 - 6
Rural Centres	130	-	-	-	0
Total	199				

Source: Derived from Table 5.

Centres are all the remaining settlements that had none of the three higher-order services in the study area. Also, it is contained in table 7 that there were 130 Rural Centres in Ijesaland. It is interesting to note that none of the settlements in the former had any of the class 1 functions. This implies that there were no supermarket, small scale industry and secondary school in the rural centres. In sum, only traditional markets (both daily and periodic), electricity, piped-water and comprehensive health centres are found in the rural centres.

One important feature of the hierarchy of centres in Ijesaland is the placement of Iperindo, the headquarters of Atakumosa East Local Government Area, among the lower order centres. Iperindo had a total number of 32 structures of the central functions comprising seven of class 1, eighteen of class 2 and seven of class 3. Thus, Iperindo is the only Local Government Area headquarters in the study area that was neither a sub-centre nor a higher-order centre. This finding opposes the assumptions of growth pole/centre theory that the propulsive firm (hereby interpreted as a major settlement such as a Local Government headquarters) is bound to expand.

The regional capital

It has been presented in the previous sections that there were varying sizes of population clusters in the study area, and that all the settlements are unequal in terms of all the central functions under consideration. While few settlements in Ijesaland contained quite a reasonable amount of services, a large number of others have very few or none at all. This situation calls for consumers to

travel at varying rates to various distances to observe one service or the other. Christaller in his Central Place postulate described areas where higher-order services are observed as central places that have influence that extends over a large area. These are tagged 'higher-order central places' and those that cover small areas are known as 'lower-order central places'.

From the preceding analyses, it can be deduced that Ilesa has overwhelming domination over all other settlements in Ijesaland. The settlement of Ilesa had at least one each of all the 27 primary variables under consideration. The total number of central functions in Ilesa alone exceeds those contained in all other settlements put together. Oyeleye (2001) observes that if a city outgrows its neighbours in both size and functions the result is the growth and development of a 'primate city'. Ilesa contained a population size that was eight times greater than the second most populous settlement, Ipetu Ijesa. The same margin was maintained in the number of commercial structures and a little higher (precisely, 8.5 times) for industrial sector. Two out of the five tertiary institutions in the whole region of Ijesaland, and a Federal Science and Technical College were located within the township of Ilesa. Aside the fact that the greatest number of services and population were recorded in Ilesa, the settlement also formed the focus of attraction of patronage for all socio-economic activities from all parts of Ijesaland. Abiodun (1971) discovered that the attraction pull of Ilesa goes beyond Ijesaland but also to include other areas, both far and near. For these reasons Ilesa can thus be regarded as a 'primate city' in the context of Ijesaland, Osun State, Nigeria.

Peel (1983) traced the historical development of Ilesa and found out that the town is necessarily a "collection of small villages and hamlets". Other settlements in Nigeria that developed from merger of several settlements,

Table 7. Hierarchy of service centres in Ijesaland, Nigeria.

s/n	Settlements	Supermarkets	Small Scale Industries	Secondary Schools	Total	Order of Centre
1	Ilesa	61	59	82	202	Main Centre
2	Ibokun	4	8	7	19	Higher-order
3	Ijebujesa	4	7	8	19	Higher-order
4	Ipetu Ijesa	3	6	9	18	Higher-order
5	Esa Oke	3	6	4	13	Intermediate
6	Erinmo Ijesa	3	4	3	10	Intermediate
7	Imesi Ile	2	4	4	10	Intermediate
8	Erin Ijesa	1	4	5	10	Intermediate
9	Erin Oke	2	3	4	09	Intermediate
10	Osu	1	3	5	09	Intermediate
11	Dagbaja	2	3	3	08	Intermediate
12	Ifewara	1	2	5	08	Intermediate
13	Ijeda	1	3	4	08	Intermediate
14	Ikeji Arakeji	2	2	3	07	Intermediate
15	Ilase	1	3	3	07	Intermediate
16	Ilowa	2	3	2	07	Intermediate
17	Iperindo	1	2	4	07	Intermediate
18	Otan Ile	2	4	1	07	Intermediate
19	Ikeji Ile	1	2	3	06	Intermediate
20	Idominasi	1	2	2	05	Intermediate
21	Iloko	1	2	1	04	Intermediate
22	Ere Ijesa	1		3	04	Intermediate
23	Ilare	1		3	04	Intermediate
24	Ipetu Ile	1		3	04	Intermediate
25	Iwoye Ijesa		2	4	06	Lower-order
26	Faforiji		2	3	05	Lower-order
27	Kajola		1	2	03	Lower-order
28	Ibodi		1	2	03	Lower-order
29	Igangan		1	1	02	Lower-order
30	Ikiyinwa		1	1	02	Lower-order
31	Ilahun		1	1	02	Lower-order
32	Apoti Ayetoro			3	03	Lower-order
33	Ilo Ayegun			3	03	Lower-order
34	Ise Ijesa			2	02	Lower-order
35	Omo Ijesa			2	02	Lower-order
36	Orisunmibare			2	02	Lower-order
37	Owena Ijesa			2	02	Lower-order
38	Aba Isegun			1	01	Lower-order
39	Ada Owode			1	01	Lower-order
40	Agbon			1	01	Lower-order
41	Ajido		1		01	Lower-order
42	Alaka			1	01	Lower-order
43	Amuye Ajebamidele			1	01	Lower-order
44	Arewa			1	01	Lower-order
45	Arowaji		1		01	Lower-order
46	Arowojobe			1	01	Lower-order
47	Bolorunduro			1	01	Lower-order

Table 7. Contd.

48	Epe			1	01	Lower-order
49	Esa Odo			1	01	Lower-order
50	Idoka			1	01	Lower-order
51	Itangunmodi			1	01	Lower-order
52	Iwara			1	01	Lower-order
53	Iwaraja			1	01	Lower-order
54	Iwaro			1	01	Lower-order
55	Kajola Adedeji			1	01	Lower-order
56	Kiloru			1	01	Lower-order
57	Odo Ijesa			1	01	Lower-order
58	Odogbo			1	01	Lower-order
59	Okoko Ago			1	01	Lower-order
60	Okoko Asalu			1	01	Lower-order
61	Olabosipo			1	01	Lower-order
62	Olowu			1	01	Lower-order
63	Onikoko			1	01	Lower-order
64	Orisunmibare Number			1	01	Lower-order
65	Osunjela		1		01	Lower-order
66	Owode			1	01	Lower-order
67	S. B. Ojo			1	01	Lower-order
68	Sokoto			1	01	Lower-order
69	Temidire			1	01	Lower-order
	TOTAL	105	149	233	487	

Source: Based on Classification of Service Centres in Ijesaland contained in Table 6.

particularly, due to growth and development of the major one have all become "primate cities" in individual's capacity. Example of such is Lagos that has grown and developed to assume one common identity "Lagos" where in actual fact there are many towns in one. Ibadan, Abuja (the Federal Capital of Nigeria), and Kaduna are also in this category.

Ekanade (1984) asserts that "Ilesa town is the focal point of all Ijesa people". The foundation for the supremacy of Ilesa over all other Ijesa settlements had been laid since 1900 when it was made an administrative headquarters by the then colonial masters. Influx of modern waves of development like public utilities (such as courts, security services, infrastructural facilities), industries and, finally, tertiary institutions further influenced the growth and development of Ilesa. The initial factors of trading and farming activities of the inhabitants of Ilesa are equally important in this explanation. Ijesas from time immemorial and up till the present day are great farmers and indisputable in the business world. The most important market in Ilesa is the Atakumosa market (a mixed daily and periodic market), which had been in existence since 1967 (Ekanade, 1984).

Finally, the spatial location of Ilesa at the centre of the region is a major factor that contributed to its rise as a regional capital. Ilesa is strategically located in the centre of Ijesaland, a position, which makes it accessible, and

focus of attraction to almost every part of the region (Figure 2).

Summary and Conclusion

This paper explored the classification and hierarchy of service centres in Ijesaland based on the availability of twenty-seven primary variables, otherwise referred to as 'Central Place Functions'. Analysis of the data available with respect to the central functions under consideration has revealed that a valid hierarchy of service centres exists in Ijesaland.

A Principal Component Analysis of the 27 central functions revealed a hierarchy of services in Ijesaland. Each of Supermarkets, Secondary Grammar Schools and Small Scale Industries has communality values greater than one and are thus categorized as higher-order services. These were used for further analyses. A broad analysis of the higher-order services yielded four orders of centres in Ijesaland, these are: 21 Higher-order Centre, 10 Intermediate Centres, 38 Lower-order Centres and Rural Centres. However, there were wide gaps in the services contained in the settlements, even within the same hierarchy, thus a comprehensive classification of service centres was attempted through grouping of the three new principal components. This revealed five hierarchies of service

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