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Household Infrastructure Delivery: An Assessment of Residents' Perception in Ilesa, Nigeria

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This study assessed residents' perception of infrastructure delivery at household level in Ilesa, Nigeria. Using multistage sampling procedure, Ilesa was stratified into three residential zones; core, transition, and the sub-urban areas, each with different number of political wards. Due to homogeneity of the areas in each zone, one area in each zone was selected randomly. In each of the area, every 25th building was systematically selected leading to administration of questionnaire on 210 residents of which 196 valid responses were retrieved, serving as the sample size for the study. Findings from the study revealed that, majority of the residents in the core area were not satisfied with the household infrastructure delivery and stated that it was inefficient, residents in the transition zone provide most of the facilities themselves but are not satisfied with the delivery because they spend huge amount of money to obtain it. The residents in the suburban area were satisfied with household infrastructure delivery. This is because, they are high income earners that can easily afford to obtain whatever facilities they need independently. The study concluded that resident had low level of satisfaction with household infrastructure delivery despite the fact that they attach high level of importance to these infrastructure in the study area.

Keywords: Household Infrastructure, Perception, Residential areas, Ilesa, Nigeria, Residents.

INTRODUCTION

Every day, people leave the comfort and serenity of rural environment to urban communities in quest for sustainable infrastructure for better life (Omotola, 2008).The availability of infrastructure in any country or state has significant impact on the general standard of living and socio-economic wellbeing of the people. This cannot be achieved without informing and involving the residents of such a place (Sulivan & Sheffrin, 2003). This is because residents' participation is of utmost importance if infrastructure is to be delivered efficiently. A cursory observation of literatures on infrastructure delivery in developing Nation, Nigeria inclusive, revealed poor infrastructure delivery and inadequate maintenance of existing infrastructure. No nation can however assert a significant development or an enhanced economy without putting in place adequate basic infrastructure to carter for the welfare of the citizens. Thus, infrastructure is a catalyst for sustainable environment.

The concept of infrastructure has been described by numerous authors (Torrisi, 2010). According to Fulmer (2009), infrastructure is the physical components of interrelated systems that provide services that are essential to enable, sustain and enhance the living conditions of residents. They are technical structures that support household and community, some of which are transformer, electric service pole, piped borne water, roads, schools, telecommunications, etc. Infrastructure is a wide range of economic and social facilities that creates an enabling environment for economic growth and quality of life (Nubi, 2002). This study limits its focus to the facilities that improve the living quality of residents directly at the household level, which are; water supply, power supply (electricity), sanitation and waste management system. Thus, these infrastructures have both direct and indirect impact on the welfare of the people. These impacts are achieved through effective infrastructure delivery.

Infrastructure delivery involves the process of supplying infrastructure to residents and ensuring that the residence have access to the derivable benefits from its delivery (Middleton, 2011). These are the means by which infrastructure needs are identified and planned for, and how it is provided by either the government, private individuals and organizational investors. According to the World Bank (2004), every 1% of government funds spent on infrastructure leads to

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an equivalent 1% increase in GDP, which means that there is a relationship between any significant input in infrastructure development and its reflection on economic growth indices, hence the value of infrastructure cannot be underestimated. Thus, infrastructure delivery can only be achieved when there is an alignment of thoughts between the infrastructure providers and the residents for whom the infrastructure is provided.

In developed and developing countries, a number of research have been carried out on infrastructure delivery (Oyedele, 2006; Ibrahim, 2010; Srinivaso, 2013; Fagbohunka, 2014; Palei 2014; Kessides 2014; OECD 2016). Most of these studies focused on infrastructural provision towards sustainable environment. For instance, in developed countries, attention is drawn towards maintenance of infrastructure that have already been put in place while the developing countries still struggle to ensure adequate provisions of infrastructure are made available (Fagbohunka, 2014).However, a review of literatures in the field brought to light that no comprehensive study has been made particularly on the public perception and opinions on the development of household infrastructure in the study area, this study is a conscious attempt to bridge this gap.

Household Infrastructure delivery can be measured by the level of every resident's access to these facilities. In order to measure the level of infrastructure delivery, opinions and perception data is needed, this is because perception refers to how individuals organize and interpret their impression about the environment (Afon, Abolade & Okanlawon, 2006). Perception will provide a broad understanding of the people's opinion about household infrastructure provided in the study area. This type of study is important because it is a public activity, hence people's reaction to such activities determine its success or failure (Mobolaji, 2020). The study focused primarily on the basic infrastructural facilities provided at residents' household level, which are; water supply, power supply (electricity), sanitation and waste management system. The focus area was Ilesa, a traditional city in Nigeria.

MATERIALS AND METHOD

Ilesa is one of the major cities in Osun State, Nigeria, Sub-Saharan Africa. It is located between Latitude 74' and 76' North of the Equator, and between Longitude 45' and 47' East of the Greenwich Meridian (See figure 1). The population of Ilesa, according to the 2006 population census figures, was 210,141 (National Bureau of Statistics, 2006). The city is about 32 kilometers north of Ile-Ife with which it shares the same senatorial seat in the Upper National Legislative Chamber, and about 30 kilometers southwest of Osogbo, the Osun State capital (Adetunji, 2012). The city is having two local government areas with their headquarters in Ilesa: Ilesa East and Ilesa West Local Government Areas. They have 11 and 10 political wards, respectively (Olojede, Daramola & Olorunfemi, 2017). As such, in all, Ilesa boasts of 21 political wards. The wards in Ilesa West are; Ayeso, Ereja, Ikoti/Araromi, Ilaje, Isida/Adeti, Isokun, Itakogun, Lower Egbedi, Omofe/Idasa and Upper/Lower Igbogi. Also, in Ilesa East, they include; Biladu, Bolorunduro, Ifosan/Oke-Eso, Ijamo, Ilerin, Iloro/Roye, Imo, Isare, Itisin/Ogudu, Okesa, Upper and Lower Ijoka.

Ilesa, being a typical African traditional city has three residential zones (see figure 2). In these residential zones, there are twelve (12),five(5) and four (4) areas in the core, transition and suburban area of Ilesa, Nigeria (Olojede, et. al., 2017). They are also relatable to the high, medium and low residential densities respectively. An African traditional city has residential characteristics that make up the town; a traditional city centre, zone of transition and the suburban settlement (Daramola & Olowoporuku, 2016). Based on cursory observation, the core area of the town has residential building that are closely connected to each other. The Brazilian type of building is the most common, residences in this zone lack access to facilities. The transition zone is characterized by the mixture of Brazilian houses and bungalows that have access to roads and other facilities. And the suburban zone is known for its well-planned layouts. The building types in this area are bungalows, compound of flats and duplexes. Provision for basic infrastructure facilities is better in this zone than the others. The transition and suburban zones are known for the heterogeneity of its residents and an improved social, physical and economic atmosphere.

In Ilesa, there are household infrastructures present which are, transformer, electricity system, waste management, water system, all in various area of the city. In addition, spatial distribution of various socioeconomic facilities gives the city its characteristic land-use pattern that in turn influences the infrastructure delivery in the city. However, despite the provision and availability of some basic infrastructure like water, electricity, telecommunication in Ilesa, the level and condition of these facilities are still inadequate and appalling considering the rate of urbanization and population growth witnessed in the town in recent times. Hence, this study narrates the residents' perception of household infrastructure delivery in different residential areas of Ilesa.

METHODOLOGY

This study was based on a field survey through administration of questionnaire. A multi-stage sampling technique was employed in the study. In the first stage, the political wards in Ilesa were stratified into three residential zones. According to Olojede, et. al., (2017), there are ten (10) wards in Ilesa West and eleven (11) wards in Ilesa East local government areas, making up twenty-one (21) wards in Ilesa. The twenty-one (21)wards in the city were grouped into three homogenous residential zones: twelve (12)area are in the core, five (5)areas are in the transition, whereas the remaining four (4)areas are in the suburban area respectively (Adetunji, 2013). These residential areas have developed overtime, having different social, economic and physical characteristics (Daramola 2017).

In the second stage, simple random sampling technique was used in selecting three (3) areas from the residential zones. Due to homogeneity of the areas in each residential zone, one area in each zone was selected randomly. The residential area selected from the core is Ereja; the residential area selected from the transition is Okesa; whereas Imo was the area selected from the suburban area. According to Olojede et al (2017), neither the number of houses nor the number of households in Ilesa is available.

In the third stage, every 25th building was systematically selected in each of the selected residential area leading to administration of questionnaire on 210 residents of which 196 valid responses were retrieved, serving as the sample size for the study. In each household, a household head that showed interest in the study was randomly selected for questionnaire administration. Where no household head was available or willing to participate, an adult was randomly selected. However, no respondent was younger than age 18, the statutory age of majority in Nigeria. This is because, in Nigeria, 18 years is the minimum age of franchise and responsibility (when somebody is no more a minor). Thus, 68 respondents in the core, 66 in the transition and 62 in the suburban residential zones were sampled.

Figure 1. Ilesa and Selected Major Cities of Nigeria

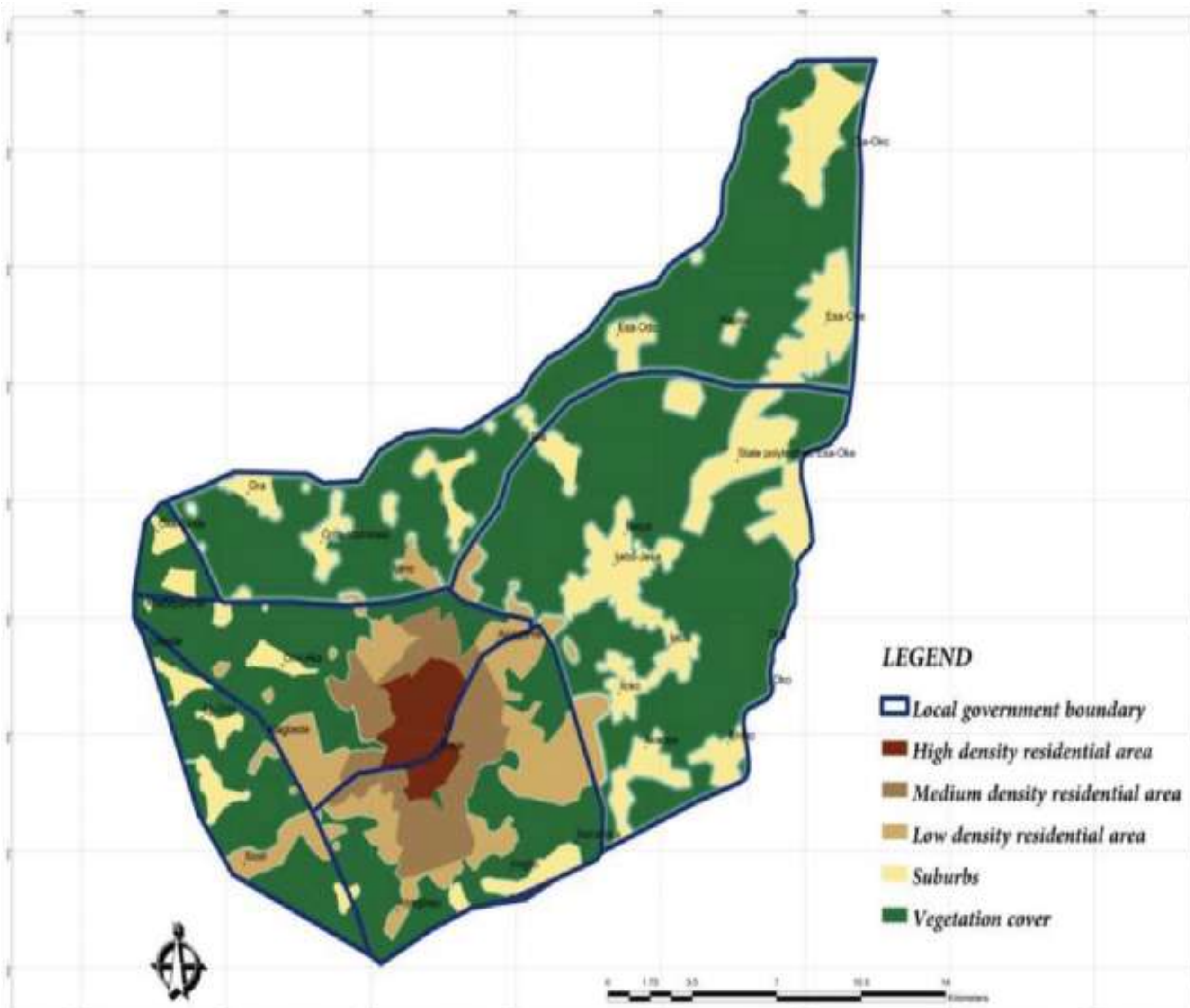

Figure 2. Residential Density Zones in Ilesa

Issues addressed in the questionnaire included socioeconomic attributes of the respondents, existing condition of household infrastructure, level of importance to and satisfaction of household infrastructure in the study area. The opinion of residents on the level of importance of household infrastructure in the study area was sought. The respondents were requested to rate the level of importance attached to the existing household infrastructure on a 5-point Likert scale (1= Very Important, 2 = Important, 3 = Just Important, 4 = Not Important and 5 = Not Important at all).

Analysis of the variables was carried out and in the course of computing the indexes, the designated values of 1,2,3,4 and 5 were used to allot weight to the options. The Weight Value (WV) for each criterion was obtained by the product of the number of responses for each rating to a variable and the respective weight of the value which was expressed as:

$$\mathrm{WV} = F_i V_i$$

Where WV was the weight value, F_i was the frequency of responses for variable *i*, V_i was the weight attached to responses on variable *i*, and *i* was the designated value of the Likert point response under consideration. The Sum of Weighted Value (SWV) for each variable was obtained by summing the product of the number of responses of each rating for a variable and the respective weight of the value expressed as:

$$\mathrm{TWV} = \sum_{i=0}^{5} F_i V_i$$

Where SWV was the total weight value, F_i is the frequency of respondents rating for variable *i* and V_i was the weight attached to variable *i*, and *i* was the designated value of the Likert point response under consideration. The mean index for each variable was obtained by dividing the SWV of each variable by the total number of respondents (N=196). This was computed as Level of Importance Attached to Household Infrastructures Index which is expressed as

$$\mathrm{LII} = \frac{\mathrm{SWV} = \sum_{i=0}^{5} F_i V_i}{N}$$

The summation of Level of Importance to Household Infrastructures Indexes divided by the total number of these household infrastructure (n) was used to compute the Mean Importance with Household Infrastructure Index ($\overline{LII}$). Any LII with the actual value of the ($\overline{LII}$) had an indication of attachment to household Infrastructure. The same process was used in determining the Level of Satisfaction of Household Infrastructure. Analysis of the data was done using cross tabulation and Analysis of Variance (ANOVA). The data for the study were collected in 2020.

RESEARCH FINDINGS

This section discusses the profile of the respondents, the condition of household infrastructure, level of importance and satisfaction attached to household infrastructure in the study area.

Profile of the Respondents

The profile of the respondents discussed is age, gender, educational attainment, income status and household size, all these in relation to their residential zones. The frequency distribution of these variables across the different residential zones presented in Table 1.Findings revealed representation of the two categories of gender across the residential zones. In all, 54.6% were male while 45.4% were female. This gender distribution has significant influence on perception of household infrastructure delivery because men are more likely to provide household infrastructure as a priority for home needs. Therefore, their opinion is essential in infrastructure development planning (Cuba & Hummon, 1993).

Age is expected to play a significant role as maturity could affect level of environmental perception. Schultz et al, (2005); Mayer & Frantz, (2004) opined that the higher one's age, the more the person is concerned about household infrastructure. This implies that older residents are expected to be more environmentally conscious than the younger counterparts. The age of the respondents was grouped into young adult (less than 45) and Adult (Above). 42.9% were less than 45 years while 57.1% were above 45years of age. These findings indicate that the residents were of age to give reliable information on the household infrastructure available in the study area.

On educational attainment, majority (64.8%) of the respondents attained tertiary education while 7.1% and 28.1% attained primary and secondary education respectively. This shows that majority of the respondents are learned and capable of revealing reliable information about household infrastructure delivery in residential zones of the study area. On average monthly income of the respondents, majority 49.0% earned above ₦61,000 while 11.2% and 39.8% earned between ₦30,000 and ₦60,000 respectively. Further findings on the mean monthly income across the residential zones revealed that, the mean monthly income in the core, transition and suburban areas were ₦31, 120, ₦62, 470 and ₦76, 150. This categorization is mainly based on the civil servant salary scale in Nigeria. Based on the categorization, variation in income class existed across residential zones in the study area as presented in Table 1. These results revealed that income distribution varied significantly with residential areas and it increased with distance from the traditional zone to the peripheral zone. The results are similar to those of some earlier studies carried out in other traditional African cities such as Ogbomoso (Afon 2005) and Ibadan (Daramola 2015) where conclusions were made that residents' income increased as distance increased from the core to the periphery of the cities.

On the length of stay, it is considered necessary for this study because of its necessity to determining people's knowledge of household infrastructure delivery. Findings were made on the number of years the respondent have stayed in their environment. The numbers of years' the respondents have stayed were categorized into three. These are ≤15years, 15– 30 years and ≥30 years. Findings revealed that majority (43.9%) spent≥30 years in the environment while 34.2% and 21.9% stayed between ≤15years and 15–30 years in their environment. The results of the ANOVA test [F (118, 2) =11.763, p = 0.001< 0.05)] revealed that there was a significant difference in the mean length of stay across the three residential areas. Further findings revealed variation existed in the length of stay as distance increases from the core to the suburban.

Condition of Household Infrastructure Delivery in the Study Area

Findings were made into the available household infrastructure and their conditions. The data collected includes the conditions of piped borne water, ventilated improved pit latrines, septic tank, borehole, waste bin, public tap, waste collector trucks, transformer, electric service pole, soak away pit and flush toilet. These variables are being considered for discussion because they are important household infrastructure in the study area. The analysis was carried out across core, transition and sub-urban areas delineated for the purpose of the study (see table 2).

Presented in Table 2 is the Household Infrastructure Condition Indexes (HICI) for the three identified differential zones in the study area. The HICIs for core, transition and suburban areas were 2.188, 2.722 and 1.970. The computed HICIs indicated that the condition of each household infrastructure was measured through an index tagged Household Infrastructure Condition Index and was ranked from infrastructure with the best to poorest condition.

In the core areas, the availability and condition of household infrastructure were ventilated improved pit latrines (2.703), public tap (2.317), septic tank (2.289), waste collector trucks (2.158), borehole (2.122), power supply cables (1.976), piped borne water (1.951), soak away pit (2.288), waste bin (1.932), transformer (1.909), electric service pole (1.907). The household infrastructure that was in good conditions were ventilated improved pit latrines, public tap and soak away pit. The infrastructure that were considered not in good condition were waste bin, transformer, electric service pole.

In the transition areas, the availability and condition of infrastructure were ventilated improved pit latrines (2.676), public tap (3.366), septic tank (2.711), waste collector trucks (2.947), borehole (2.780), power supply cables (2.810), piped borne water (3.268), soak away pit (2.658), waste bin (2.295), transformer (2.477), electric service pole (2.698). The infrastructure that were in good conditions were public tap, piped borne water and waste collector truck. The infrastructure that were considered not in good condition were soak away pit, waste bin and transformer.

In the sub-urban areas, the availability and condition of infrastructure were ventilated improved pit latrines (2.135), public tap (2.171), septic tank (1.789), waste collector trucks (2.237), borehole (1.610), power supply cables (1.738), piped borne water (1.805), soak away pit (2.132), waste bin (1.818), transformer (1.659), electric service pole (1.674).

Table 1: Profile of Respondents

Parameters	Core	Transition	Sub-urban	Total
	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)
Gender				
Male	36 (52.9)	38 (57.6)	33(53.2)	107 (54.6)
Female	32 (47.1)	28 (42.4)	29 (46.8)	89 (45.4)
Total	**68 (100.0)**	**66 (100.0)**	**62 (100.0)**	**196 (100.0)**
Age				
≤ 45	27 (39.7)	35 (53.0)	22 (35.5)	84 (42.9)
≥ 45	41 (60.3)	31 (47.0)	40 (64.5)	112 (57.1)
Total	**68 (100.0)**	**66 (100.0)**	**62 (100.0)**	**196 (100.0)**
Educational Attainment				
Primary	14 (20.6)	-	-	14 (7.1)
Secondary	18 (26.5)	27 (40.9)	10 (16.1)	55 (28.1)
Tertiary	36 (52.9)	39 (59.1)	52 (83.9)	127 (64.8)
Total	**68 (100.0)**	**66 (100.0)**	**62 (100.0)**	**196 (100.0)**
Average Monthly Income				
≤ #30,000	14 (20.6)	05 (7.6)	03 (4.8)	22 (11.2)
≤ #60,000	41 (60.3)	16 (24.2)	21 (33.9)	78 (39.8)
≥ #61,000	13 (19.1)	45 (68.2)	38 (61.3)	96 (49.0)
Total	**68 (100.0)**	**66 (100.0)**	**62 (100.0)**	**196 (100.0)**
Number of Years Spent in the Study Area				
≤ 15 years	14 (20.6)	18 (27.3)	11 (17.7)	43 (21.9)
15 – 30 years	17 (25.0)	21 (31.8)	29 (46.7)	67 (34.2)
≥ 30 years	37 (54.4)	27 (40.9)	22 (35.6)	86 (43.9)
Total	**68 (100)**	**66 (100)**	**62 (100)**	**196 (100)**
Household Size				
1-5	06 (8.8)	38 (57.6)	40 (64.5)	84 (42.9)
6-10	59 (86.8)	24 (36.4)	22 (35.5)	105 (53.6)
Above 10	03 (4.4)	04 (6.0)	-	07 (3.5)
Total	**68 (100)**	**66 (100)**	**62 (100)**	**196 (100)**
Type of House Occupied				
Detached Bungalow	22 (32.4)	29 (43.9)	36 (58.1)	87 (44.4)
Semi-detached Bungalow	16 (23.5)	22 (33.3)	10 (16.1)	48 (24.5)
Storey Building	18 (26.5)	05 (7.6)	14 (22.6)	37(18.9)
Duplex	12 (17.6)	10 (15.2)	02 (3.2)	24 (12.2)
Total	**68 (100)**	**66 (100)**	**62 (100)**	**196 (100)**

Source: Author's field survey, 2020

Table 2: Condition of Household Infrastructure

Household Infrastructure	Core		Transition		Sub-urban	
	Mean	Rank	Mean	Rank	Mean	Rank
Piped Borne Water	1.951	8th	3.268	2nd	1.805	7th
Ventilated Improved Pit Latrines	2.703	1st	2.676	8th	2.135	4th
Septic Tank	2.289	4th	2.711	6th	1.789	8th
Borehole	2.122	6th	2.780	5th	1.610	12th
Power Supply Cables	1.976	7th	2.810	4th	1.738	9th
Waste Bin	1.932	9th	2.295	11th	1.818	6th
Public Tap	2.317	2nd	3.366	1st	2.171	3rd
Waste Collector Trucks	2.158	5th	2.947	3rd	2.237	1st
Transformer	1.909	10th	2.477	10th	1.659	11th
Electric Service Pole	1.907	11th	2.698	7th	1.674	10th
Soak Away Pit	2.288	3rd	2.658	9th	2.132	5th
Flush Toilets	1.864	12th	1.982 2.2115	12th	2.229	2nd
ICI	**2.188**		**2.722**		**1.970**	

Source: Author's field survey, 2020

Table 3: Level of Importance Attached to Household Infrastructure

Household Infrastructure	Core		Transition		Sub-urban	
	Mean	Rank	Mean	Rank	Mean	Rank
Piped Borne Water	4.244	8th	4.851	1st	4.735	3rd
Ventilated Improved Pit Latrines	3.902	9th	3.814	11th	4.000	10th
Septic Tank	4.462	3rd	4.435	7th	4.606	5th
Borehole	4.415	4th	4.521	4th	4.714	4th
Waste Bin	4.333	7th	4.500	5th	4.556	9th
Public Tap	4.416	5th	4.053	9th	4.588	7th
Waste Collector Trucks	3.194	11th	4.438	6th	4.571	8th
Transformer	4.689	1st	4.000	10th	4.806	1st
Electric Service Pole	4.644	2nd	4.778	2nd	4.778	2nd
Soak Away Pit	4.381	6th	4.543	3rd	3.867	11th
Flush Toilets	3.903	10th	4.136 2.2115	8th	4.600	6th
ICI	**4.235**		**4.370**		**4.529**	

Source: Author's field survey, 2020

The infrastructure that were in good conditions were public tap, flush toilet and waste collector truck. The infrastructure that were considered not in good condition were transformer, electric service pole and power supply cable. Impliedly, public tap, waste collector truck, and ventilated improved pit latrine were ranked 1st, 2nd and 3rd while electric service pole, waste bin and power supply cables were ranked 9th, 10th, and 11th respectively in the three residential areas. It is obvious that the condition of household infrastructure varies in different residential areas of Ilesa.

Presented in Table 3 is the level of importance attached to household infrastructure in different residential zones. The level of Household Infrastructure Importance Indexes (HLII) for the core, transition and suburban areas were 4.235, 4.370, and 4.5292. The computed HLIIs indicated that the level of importance attached to each infrastructure was measured through an index tagged "Level of Household Infrastructure Importance Index" and was ranked from infrastructure with the very important to not at all important. It can be inferred from the analysis that the level of importance attached to each household infrastructure was as a result of its need among the residents.

In the core areas, the infrastructure that was attach importance to were transformer (4.689), septic tank (4.462), electric service pole (4.644), ventilated improved pit latrines (3.902), flush toilets (3.903), and waste collector trucks (3.194).

Table 4: Level of Satisfaction Derived from Household Infrastructure

Infrastructure	Core		Transition		Sub-urban	
	Mean	**Rank**	**Mean**	**Rank**	**Mean**	**Rank**
Piped Borne Water	3.756	7th	2.408	10th	2.469	10th
Ventilated Improved Pit Latrines	3.256	11th	3.114	9th	3.310	9th
Septic Tank	3.767	5th	3.652	2nd	3.788	4th
Borehole	3.930	2nd	3.794	1st	3.794	3rd
Waste Bin	3.800	4th	3.438	7th	3.722	5th
Public Tap	3.366	10th	2.167	11th	2.424	11th
Waste Collector Trucks	3.707	8th	3.367	8th	3.382	8th
Transformer	4.044	1st	3.646	3rd	3.629	6th
Electric Service Pole	3.889	3rd	3.500	6th	3.829	2nd
Soak Away Pit	3.548	9th	3.533	5th	3.500	7th
Flush Toilets	3.766	6th	3.622 2.2115	4th	3.886	1st
ICI	**3.712**		**3.295**		**3.430**	

Source: Author's field survey, 2020

The infrastructure that was attached very importance to was transformer, electric service pole and septic tank while residents does not at all attach importance to ventilated improved pit latrines, flush toilets and waste collector trucks.

In the transition areas, majority of the infrastructure were piped borne water (4.851), electric service pole (4.778), soak away pit (4.543) transformer (4.000), public tap (4.053) and ventilated improved pit latrines (3.814). Thus, majority of the respondents attached high level of importance to electric service pole, soak away pit and piped borne water while less importance was attached to public tap, transformer and ventilated improved pit latrines.

In the sub-urban areas, the infrastructure that was attached importance to were transformer (4.806), electric service pole (4.778), piped borne water (4.735), waste bin (4.556), ventilated improved pit latrines (4.000), and soak away pit (3.867). However, the respondents attached high level of importance to piped borne water, electric service pole and transformer while low level of importance were attached to soak away pit, ventilated improved pit latrines and waste bin. Impliedly, piped borne water, electric service pole and transformer were ranked 1st, 2nd and 3rd while ventilated improved pit latrines, waste bin and soak away pit were ranked 9th, 10th, and 11th respectively in the three residential areas. From the foregoing, it is apparent that residents in all the residential zones attached high level of importance to electricity supply for their day-to-day activities. This is because electricity supply plays a vital role in sustainable living environment.

Presented in Table 4 is the level of satisfaction derived from household infrastructure delivery in different residential zones. The Residents Satisfaction Indexes (RSI) for the core, transition and suburban areas were 3.712, 3.295 and 3.430. The computed RSIs indicated that the level of satisfaction derived from each household infrastructure was measured through an index tagged "Residence Satisfaction Index" and was ranked from very satisfied to very dissatisfied. It can be inferred from the analysis that the level of satisfaction derived from each household infrastructure was as a result of individual's perception and need.

In the core areas, residents derived satisfaction from transformer (4.044), borehole (3.930), electric service pole (3.889), soak away (3.548), public tap (3.366), and ventilated improved pit latrines (3.256). however, respondents derived high satisfaction from transformer, borehole and electric service pole and less satisfaction from public tap, ventilated improved pit latrines and soak away pit.

In the transition areas, majority of the infrastructure were borehole (3.794), septic tank (3.652), transformer (3.646), ventilated improved pit latrines (3.114), piped borne water (2.408) and public tap. Thus, majority of the respondents attached high level of satisfaction to septic tank, borehole and transformer while less satisfaction were derived from ventilated improved pit latrines, piped borne water and public tap.

In the sub-urban areas, the infrastructure were flush toilets (3.886), public tap (2.422), electric service pole (3.829), borehole (3.794), ventilated improved pit latrines (3.310), and piped borne water (2.469). Thus, the respondents derived high level of satisfaction from borehole, electric service pole and flush toilets while less satisfaction were derived from public tap, piped borne water and ventilated improved pit latrines. However, the respondents derived high level of satisfaction from borehole, transformer and electric service pole which were ranked 1st, 2nd and 3rd while less satisfaction were derived from public tap, piped borne water and ventilated improved pit ranked 9th, 10th, and 11th respectively in the three residential areas. From the foregoing, residents in different residential areas of Ilesa derived higher satisfactions from power supply system (Transformer, Electric Service Pole). Even though, there are still other household infrastructure with adequate satisfaction by the residents, it is expedient that, residents were satisfied with fewer household infrastructure in the city.

CONCLUSION AND RECOMMENDATION

The study concluded that variation existed in the level of household infrastructure delivery across the three residential zones in Ilesa, Nigeria. Majority of the residents in the core area were not satisfied with the household infrastructure delivery and stated that it was inefficient, residents in the transition zone provide most of the facilities themselves but are not satisfied with the delivery because they spend huge amount of money to obtain it. The residents in the suburban area were satisfied with household infrastructure delivery. This is because, they are high income earners that can easily afford to obtain whatever facilities they need independently. The study concluded that resident had low level of satisfaction with household infrastructure delivery despite the fact that they attach high level of importance to these household infrastructures in the study area.

Based on these, the followings are recommended; there is need for adequate provision of household infrastructures and improvement of existing infrastructure. Also, there must be good policy planning and implementation. This is because effective planning and policy implementation will include budgetary, data gathering and analysis on the appropriate infrastructure to be provided and future control of infrastructure maintenance.

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CONFLICT OF INTEREST

'The authors declare no conflict of interest'

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